

**Exploring the Changing Context of Initial Primary Teacher Education in
Malawi: Towards Pre-service Teacher Retention from a Recruitment and
Mentoring Perspective**

Thesis submitted in accordance with the requirements of the University of
Liverpool for the
Degree of Doctor of Education (EdD)

by

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Dedication

This thesis is dedicated to my late father, Mr Fred Salagi, who was a caring and loving father. His absence left a big vacuum in our family with regard to accessing the basic needs of life, including education.

Abstract

The provision of quality education in schools is an endeavour that requires qualified teachers. However, in Malawi attrition impacts negatively on pre-service teacher retention according to the available literature. In addition, due to limited research, a knowledge gap exists in terms of how to retain pre-service teachers.

Given these circumstances, this study examines the influence of age, gender, recruitment and mentoring on pre-service teachers' retention. Human capital theory (HCT) underpins this study and has helped to analyse the retention phenomenon. This theory suggests that education as an investment equips individuals with relevant knowledge and practical skills that increase their productivity, hence the theory supports an analysis of individuals' occupational choice. Accordingly, the research participants have included pre-service teachers, teacher-trainers, teaching practice coordinators and mentors who were chosen using a non-probability sampling method. Data were collected through questionnaires and interviews. The use of SPSS software facilitated quantitative data analysis while qualitative data were analysed thematically.

The findings indicate that pre-service teachers in Malawi choose the profession because of: their passion to teach children; teachers' influence over them; and the availability of further education opportunities that facilitate future career advancement. However, neither their parents nor the lack of alternative jobs influenced their choice of profession. Additionally, age, gender, interest, induction, location, resource availability and other factors significantly impact on pre-service teachers' retention. Given these findings, this study suggests that taking account of key retention factors in teacher education curricula, candidates' assessment and enrolment have the potential to enhance pre-service teachers' retention while also improving professional practice in Malawi.

Keywords: Hard-to-staff, high-risk schools, mentoring, teacher retention

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List of Abbreviations

CBE	Complementary Basic Education
DFID	Department for International Development
DTED	Department of Teacher Education and Development
EdD	Doctor of Education
EFA	Education For All
EMIS	Education Management Information System
EQUIP	Education Quality Improvement Program
FPE	Free Primary Education
GCE	General Certificate of Education
GDP	Gross Domestic Product
GTZ	Germany Technical Cooperation
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immuno Deficiency
IPTE	Initial Primary Teacher Education
JICA	Japanese International Cooperation Agency
MDGs	Millennium Development Goals
MGDS	Malawi Growth and Development Strategy
MoESC	Ministry of Education, Science and Culture
MoEST	Ministry of Education, Science and Technology
MoFA	Ministry of Foreign Affairs
MSCE	Malawi School Certificate of Education
NCTAF	National Commission on Teaching and America's Future
NESP	National Education Sector Plan
NSO	National Statistics Office
ODL	Open and Distance Learning
PIF	Policy and Investment Framework
PTR	Pupil Teacher Ratio
SDGs	Sustainable Development Goals
SEJ	School Experience Journal

SPSS	Statistical Package for Social Sciences
STEM	Science and Technology, Engineering and Mathematics Syndrome
TAKS	Texas Assessment of Knowledge and Skills
TP	Teaching Practice
TTC	Teacher Training College
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Emergency Fund
UPE	Universal Primary Education
USAID	United States Aid for International Development

Chapter 1: Introduction

1.1. Thesis Overview

This dissertation examines the factors that influence the retention of pre-service primary school teachers in teacher training institutions in Malawi. It focuses on strategies for retaining pre-service teachers and the relationship between retention and the pre-service teachers' age and gender. The study also analyses the influence of recruitment factors and mentoring on the retention of pre-service teachers. Hence, this study concentrates on the characteristics that influence the retention of pre-service teachers in Malawi.

In this regard, this thesis establishes that besides recruitment modalities and mentoring practices, the retention of pre-service teachers in Malawi is influenced by their induction, district of origin, timely payment of upkeep allowances, support and keen interest in the career. In which case, the pre-service teachers' age and gender play a significant role.

Given this claim, Chapter 1 provides an overview and the background context of the thesis. It discusses attrition of both qualified and pre-service teachers, cost implications, and pre-service teacher retention in general. The chapter also highlights the structure of primary teacher education in Malawi and this study's problem statement.

Chapter 2 reviews the related literature on qualified and pre-service teachers' attrition in Malawi from both a regional and international perspective. The chapter examines the causes of pre-service teacher attrition in hard-to-staff and high-risk schools, related implications and their impact on teacher education. Morgan and Kritsonis (2008) define hard-to-staff schools as those with a high percentage of socio-economically disadvantaged students with challenging teaching environments and located in undesirable areas. In addition, Yonezawa, Jones and Singer (2011) define them as those with a high student population and fewer teachers than required. Semke and Sheridan (2012) characterise hard-to-staff schools in the countryside as those with inadequate and poor resources,

high teacher turnover and staffed by inexperienced and poorly-prepared teachers. On the other hand, high-risk schools have inadequate teaching resources and social amenities, hostile surrounding communities and a lack of role models (Frank, Bose, & Schrobenhauser-Clonan, 2014). Mitchell (2015) identifies high-risk schools as those populated by children who are relatively impoverished, exhibit behavioural problems and low academic achievement and, in some instances, have insufficient teaching and learning resources.

The chapter also examines the characteristics of pre-service teachers, retention issues as they relate to hard-to-staff and high-risk schools, retention strategies and their related impact on primary teacher education from local, regional and global perspectives. It also discusses some of the earlier literature on the relationships between pre-service teacher recruitment, mentoring and retention. This chapter also discusses the purpose of this study and its significance. Additionally, primary and secondary research questions are analysed.

Chapter 3 introduces the study's research methodology, research design (with a particular focus on sampling techniques), and data collection tools with a special focus on their reliability and validity. Additionally, a theoretical framework underpinning this study, ethical considerations, data analyses and research limitations are outlined.

Chapter 4 presents the study's findings based on the research questions and the data collected. It considers the demographic information of the research participants and the reasons pre-service teachers have for choosing the teaching profession. This chapter also presents findings derived from the preparation of pre-service teachers' teaching practice placements in rural areas, hard-to-staff and high-risk schools.

Chapter 5 discusses the study's findings in greater detail, based on the collected data as presented in the previous chapter. This discussion is critically developed in relation to the findings from related previous studies (i.e. the literature) which have studied different regional and national contexts.

Finally, Chapter 6 offers conclusions and recommendations while identifying areas for further study. In addition, an improvement plan for professional practice in Malawi is also outlined.

1.2. Context for the study

1.2.1. Location of Malawi

Malawi is a landlocked country situated in the sub-Saharan Africa. It is bordered by Mozambique on the east and southwest, Tanzania on the north and northeast, and by Zambia on the west and north-western side. The country occupies a land area of 118,484 km² of which Lake Malawi, one of top 10 largest fresh water lakes in the world, accounts for one-fifth of the country's total area. The country occupies a narrow curving strip of land extending 853 km from north to south and 257 km from east to west.

Malawi is divided into 28 political districts within four regions thus North, Centre, South and East. There are two major cities namely Lilongwe which is the capital located in the central region and Blantyre which is the commercial hub located in the southern region. There are also two smaller cities of Zomba and Mzuzu.

The Bantu group settled in the area in the 10th Century and remained there until the 19th Century when the country was colonised by the British. From 1891, when the country became a British Protectorate, it was known as Nyasaland. This name remained so until 1964 when the country got its independence under the leadership of the late Dr Hastings Kamuzu Banda who became the first president and the country's name was changed to Malawi. From that time, the country was under a single party rule until 1994 when the democratic dispensation was adopted.

There are many tribes in different parts of Malawi each having its own distinct language but the predominant ones include Tumbuka, Sena, Yao, Lomwe, Ngoni, and Chewa. The official language is English while Chichewa is a dominantly spoken native language.

1.2.2. Socio-economic status of Malawi

With a relatively small land area and a population of about 18 million, of which 85% live in rural areas, Malawi's economy is basically agro-based contributing about 30% of the Gross Domestic Product (GDP) (National Statistical Office [NSO], 2008). The country has a GDP per capita income of about \$160 (World Bank, 2008). As one of the poorest and least developed countries in the world, with a 2015 Human Development Index (HDI) of 0.476 (UNDP, 2016), 52% of the population lives below the poverty benchmark of \$1 per day.

1.2.3. Education system in Malawi

A study on Malawi's education system by Ng'ambi (2010) established that during the colonial era (1891-1963), the country's education system was initially designed after the British, taking the form of 4-3-3 system, that is, four years of primary, 3 years of junior secondary and 3 years of senior secondary. This was later changed to a 5-3-4-2, thus, five years of junior primary, three years of senior primary, four years of basic secondary and two years of study for external examinations of which students sat for the British General Certificate of Education O level (GCE O level) (Ng'ambi, 2010). During the post-independence era (1964 to date), the education system was slightly modified to a 5-3-4-4, thus five years of junior primary, three years of senior primary, four years of secondary and four years of higher education. However, after secondary education, students sit for Malawi School Certificate of Education (MSCE) examinations leading to university. Those that do not make it to university, enrol for other courses such as primary teacher training and technical and vocational education.

1.2.4. Primary Education in Malawi

Children enter primary school at the age of six. The primary school cycle takes 8 years of education. Although 95% of school-aged children enrol in primary schools, about 60% progress to grade 6 while only 40 % continue on to

grade 8 (Kayser, 2013). According to Kadzamira and Rose (2003), many children drop out mainly due to poverty. Malawi has about 5,000 primary schools of which over 91% are owned by the government (World Bank, 2006) while the rest are privately-owned. In 1994, the Malawi Government introduced free primary education to meet the Millennium Development Goal target of universal primary education. As a result, learner enrolment increased from 1.8 million to about 3.1 million, hence, posing the challenge of teacher shortage and classroom space.

1.2.5. Teaching in Malawi Primary Schools

The number of learners in primary schools is currently 4.8 million who are being taught in slightly over 5,000 schools. Many primary schools in Malawi are located in the rural areas mostly because the rural population accounts for 85% of the total population (Ellis, Kutengule and Nyasulu, 2003). According to Kadzamira (2006), teaching in primary schools generally occurs in substandard structures that are normally built by communities who have inadequate construction skills. However, in urban areas some schools have better classrooms. Due to limited classroom space, teaching and learning takes place in poor environments and sometimes under the shade of a tree.

The official Pupil to Teacher Ratio (PTR) is 60:1 (Kadzamila, 2006) but the national average stands at 74:1 (World Bank, 2014). In urban areas, 82% of the teachers are female while in the rural areas female teachers account for 31%. Asim, Chimombo, Chugunov and Gera (2017) argue that there are severe geographical disparities across Malawi with most teachers concentrated in commercial centres that have better amenities. The problem emanates from the decision not to separate spouses especially in deployment for work. However, education officials have begun deploying new teachers to rural areas only in order to resolve teacher shortage.

The teaching and learning materials are mostly provided by the Ministry of Education although some are locally made by the teachers themselves. The Ministry supplies textbooks, note books, writing materials and desks to most schools but they are inadequate. According to EMIS (2013), on average, 4 to 12

primary school learners share a textbook of any subject. This shortage is most prevalent in standards 5 and 6 although the other class groupings also face similar problems. However, the Ministry of Education is in the process of decentralising procurement of textbooks to schools.

1.2.6. Education for out-of-school children

Although primary schools in Malawi enrol learners every year, some drop out of school. According to World Bank (2014), 11% of boys of school going age are out of school while girls constitute 10%. Learners drop out of school for many reasons including poverty, teenage pregnancies, early marriages and long distances to school (Naunje, 2004). However, efforts were put in place to provide some form of education to out-of-school children including the establishment of a Complementary Basic Education (CBE) programme. This programme is delivered under the auspices of the Ministry of Education in collaboration with the German Technical Cooperation (GTZ) and support from United Nations Children's Emergency Fund (UNICEF). The programme follows the formal education curriculum with minor modifications and it is run five days a week for 36 weeks per year. Teaching is done by volunteer secondary school leavers (Facilitators) in selected learning centres across the country. Each centre is managed by a committee of community volunteers. The communities agree to offer lessons for three hours either in the morning or afternoon. The schedule of the programme is that 60% of the time is spent on literacy and numeracy while the other 40% is spent on other subjects according to the needs of the learners.

1.2.7. Primary Teacher Education in Malawi

Pre-service primary teachers enrol in teacher training colleges through a programme called Initial Primary Teacher Education (IPTE). The programme, which is delivered through either a conventional (face-to-face) or an Open and Distance Learning (ODL) delivery mode, takes two years during which the trainees are referred to as pre-service teachers, and culminates in a Primary School Teacher Certificate. The ODL mode was established to increase the number of trained primary school teachers to improve the quality of primary

education, and ultimately attain Millennium Development Goal 2 (MDG) which advocates universal primary education (Unterhalter, Poole, & Winters, 2015).

The pre-service teachers receive their training in any of the 6 public and 6 private teacher training colleges, though more colleges will be constructed in the next few years. The government pays tuition fees for pre-service teachers studying in public colleges while those in private colleges pay their own fees. The Ministry of Education, Science and Technology (MoEST) regulates the training function through the Department of Teacher Education and Development (DTED), where this author performs the role of coordinating the training programmes. The Department advertises teacher training opportunities through both print and electronic media. Eligible applicants are holders of a Malawi School Certificate of Education (MSCE). The applicants are shortlisted and interviewed through an aptitude test (entrance examination) conducted in selected centres throughout the country. The applicants are tested on numeracy, verbal reasoning and communication skills. Selection of prospective pre-service teachers is based on the quota for each district to ensure equitable access to teacher training. However, equal numbers of male and female pre-service teachers are selected to ensure gender balance. The conventional delivery mode requires pre-service primary teachers to study the theory of teaching for one year in college and the other year is spent on attachment in a rural school where they practise teaching. The ODL mode requires them to study through modules while practising teaching at a rural primary school. When conventional teacher trainees are on holiday, the ODL delivery mode trainees come on campus for some face-to-face interaction with their tutors. During the Teaching Practice (TP) period, trainees are assigned mentors who provide them with professional assistance. However, during the training period, some pre-service teachers can, and too often do, withdraw at any time despite the availability of incentives such as a small monthly upkeep allowance of about 26 United States Dollars, free tuition, meals and accommodation. Whereas primary teacher training is free, other post-school education opportunity is not – so teacher training is a way to continue one's education when other routes are not accessible.

1.2.8. Mentoring

The primary teacher training curriculum offered in colleges in Malawi is complemented by a mentoring component. Mentoring is defined by Brondyk and Seaby (2013) as a professional relationship between an older, more experienced teacher and a less experienced one. Additionally, Mignott (2011) indicates that mentoring involves the passing on of valuable skills from one person to another. The pre-service teachers are assigned a mentor who is an experienced teacher at each Teaching Practice School. One mentor is assigned between 6 to 10 pre-service teachers. Once the experienced teachers are appointed as mentors, they become part of the teacher training personnel but operating at school level. A mentor has multiple roles which include; supervising and monitoring pre-service teachers during teaching practice, conducting demonstration lessons, observing pre-service teachers' lessons and advise where appropriate, compiling reports about pre-service teachers' progress to the Teaching Practice Coordinator who is based at a teacher training college, scoring preservice teachers' work recorded in a School Experience Journal (SEJ) and guiding and counselling the pre-service teachers.

1.2.9. Education Financing in Malawi

Malawi realises that the provision of education to its citizenry is pertinent for socio-economic development. In this regard, the Government allocates financial resources, annually, to the Ministry of Education for construction of new school blocks, purchase of teaching and learning materials, initial teacher training and for continuing professional development.

According to World Bank (2014), education spending is relatively high in Malawi. In addition, it is higher than the average education expenditure in the sub-Saharan Africa. While primary education accounts for about half of the total public education expenditure, external contribution from Developing Partners such as the Department for International Development (DFID), German Technical Cooperation (GTZ), Japanese International Cooperation (JICA), United States Agency for International Development (USAID) and others contribute

about 36% meant for construction of school blocks, initial teacher training and teachers' continuing professional development. However, despite the large share of public expenditure on education in Malawi, outputs and outcomes remain poor due to high rates of learner absenteeism, repetition, and drop outs. On the other hand, the salary of teachers is very low despite absorbing about 84% of recurrent expenditure on primary education. Hence, there is too little room for financing other activities pertinent for delivering quality education.

1.2.10. Education Policy Development in Malawi

The education system in Malawi is governed by the Education Act of 2013 which among other issues reinforces compulsory primary education. As a way of addressing the provisions of the Act, the Ministry of Education developed a number of policies that guide the implementation of various education services at all levels. From 2000 – 2012, the Ministry of Education implemented a Policy and Investment Framework (PIF) which defined the financing of priority programmes for the education sector. The PIF sought to guide funding mechanisms and figures for all the education sectors in order to achieve quality. Later on, the National Education Sector Plan, which run from 2008 to 2017, supported the Government of Malawi's commitment to the realisation of the Malawi Growth and Development Strategy (MGDS) and other international protocols such as the Education for All (EFA) Goals which aligned well with the MDGs. In view of a 10% drop-out rate for girls that occurs mainly due to pregnancies and early marriages, the Ministry of Education developed a School Readmission Policy which seeks to readmit teen-mothers back to school. According to the Gender Report (2011), the policy was developed because women are major contributors to the economy and that educating the girl child promotes access to factors of production in agro-economies. Above all, a National Education Policy for Malawi was developed in 2013 to deliver quality education at all levels while embracing provisions of all other policies.

1.2.11. My role in the department of teacher education development

Given the description of primary teacher education in Malawi, a Department for Teacher Education and Development (DTED) under the Malawi Ministry of Education was established. In this department, I was appointed a Principal Education Officer responsible for coordination of both in-service and pre-service teacher education activities. In this regard, I implement recruitment processes of prospective pre-service teachers for enrolment into teacher training colleges. I also implement continuous professional development of serving teachers. Above all, I monitor the implementation of teacher education and development programmes in teacher training colleges (pre-service teachers) and schools (in-service teachers) from which I compile reports that are presented to senior managers such as Directors, Principal Secretary and the Minister. I also present teacher education reports in Principals' forums and Technical Working Groups. In addition, I propose and advise the senior managers on workable pre-service and in-service teacher training policies. Hence, having worked for the department for a decade I was aware that some trained teachers kept moving out of the profession for various reasons. In addition, I discovered that pre-service teachers also withdraw from the training despite providing them all necessary materials. Hence, I decided to explore the possibility of retaining the pre-service teachers in schools and colleges through a research study.

1.3. Background context

In a study in Nigerian universities, Jekayinfa (2012), suggests that education is necessary to equip individuals with the ability to act and reflect on their immediate environment. Similarly, in Central America, White and Cooper (2014) corroborate Taiwo's (2014) argument that education helps individuals transform the society they live in, since knowledge, skills and values are transmitted from one generation to another. Therefore, education is relevant because it prepares a student not only for work but also for life. White and Cooper (2014) further argue that teachers facilitate the provision of education.

However, achieving quality education relies on many factors including well-qualified teachers and proper school staffing. In addition, White and Cooper observe that understaffing in schools hinders the fundamental purposes of providing quality education. Unfortunately, most schools in the sub-Saharan Africa lack enough teachers, hence, as Ogunniyi and Rollnick (2015) suggest, this situation usually compromises the quality of education. This scenario is also prevalent in Malawi, where according to DeStephano (2013), the shortage of teachers is about 25% worse because of inefficiencies in teacher deployment.

In 2000, all countries in the world collectively developed and adopted the eight Millennium Development Goals (MDGs) to serve as a blueprint for building a better world in the 21st century (Jekayinfa, 2012). More importantly, Goal No. 2 emphasised the importance of achieving Universal Primary Education (UPE) (Aidoo, 2013). Because of this target, teaching primary school learners became one of the fundamental aspects of various educational systems worldwide. Accordingly, Brindley (2014) observes that this idea translated into recognising teacher training as one of the focal points that could deal with the ever-increasing learner population.

1.4. Pre-service teacher training completion

Despite the relative lack of studies on pre-service teacher education in the past few years, colleges in Malawi have enrolled substantial numbers of pre-service teachers, however their retention rates remain below 80% on average (MoEST, 2013; EMIS, 2014). Moreover, their completion rates vary substantially by gender and college, hence some colleges have higher rates than others as shown in Figure 1. In some colleges, female pre-service teachers have higher completion rates than males, and vice versa (MoEST, 2013). Conversely, in some colleges, those on the conventional (face-to-face) delivery mode, have higher completion rates than those on the Open and Distance Learning (ODL) mode, and vice versa (MoEST, 2013). This situation leads to questions as to why completion rates differ among colleges, across the gender divide and between the two delivery modes.

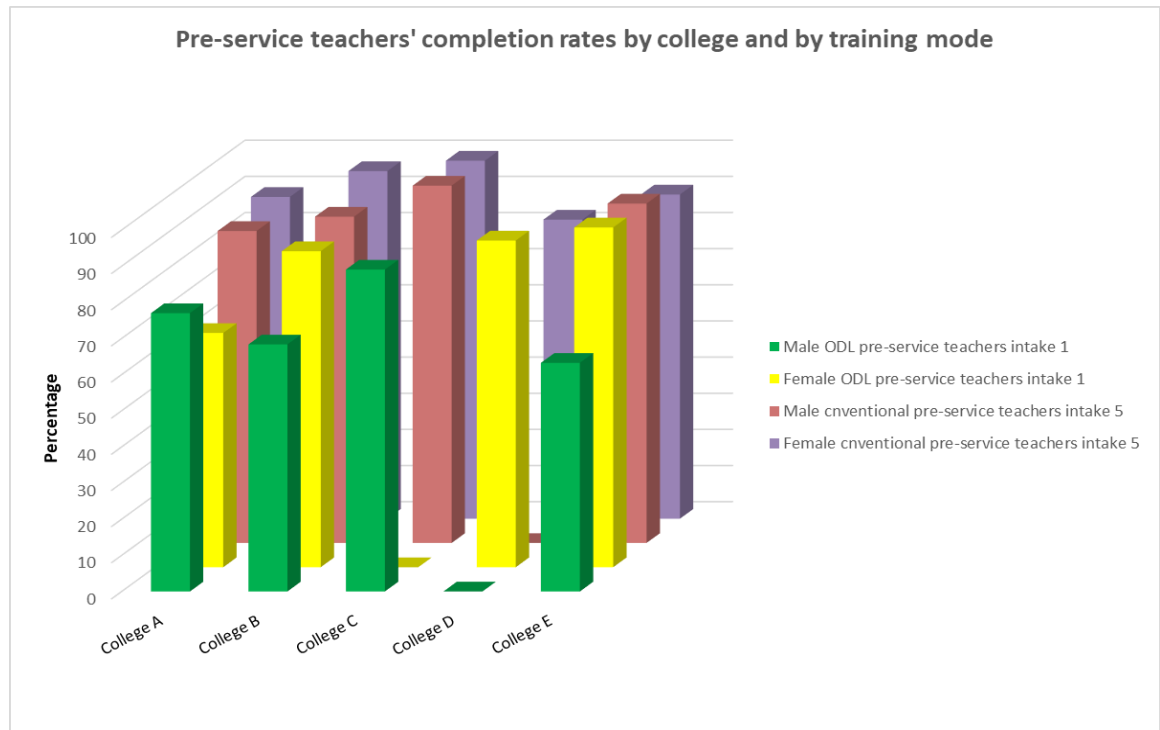


Figure 1. Pre-service teacher retention rates by college and training mode

Source: MoEST, 2013

Following this identifiable variation in training completion rates, this study focuses on bridging the knowledge gap in relation to the factors that influence the retention of pre-service teachers in Malawi during the campus-based and teaching practicum years.

Given this information, this dissertation aims to generate relevant knowledge regarding factors that may influence pre-service teachers to stay in their programmes. Therefore, this knowledge will help the MoEST to modify its training policies so that any government investment and that of its partners can be utilised effectively.

1.5. Statement of the problem

Having described the organisation of the teacher training programme in Malawi, DTED recognises that the production of highly skilled and professional teachers is a vital component in primary teacher education systems, including

believing that teachers should have pedagogical knowledge as well as communication, interactive and problem-solving skills (Rongraung, Somprach, Khanthap, & Sitthisom, 2013).

Given these skills, and according to the Malawi Ministry of Education Sector Improvement Plan (MoEST, 2014), DTED also emphasises building up the capacity of pre-service teachers. This arrangement is fulfilled by recruiting prospective teacher trainees committed to serving people in rural areas, particularly in hard-to-staff schools. In this regard, the Government of Malawi through MoEST, has put in place mechanisms to increase the number of teachers, particularly in the primary school subsector. These mechanisms include constructing new and large capacity colleges, increasing enrolment, and enhancing public and private partnerships (PPPs) in primary teacher education (NESP, 2005).

Although the Ministry of Education in Malawi planned to increase the number of primary school teachers (Kadzamira, 2003), by setting a pupil to teacher ratio target of 60:1 by 2017 and successfully achieving it (Asim, Chimombo, Chugunov, & Gera, 2017), pre-service teacher attrition is still high (Moleni & Ndalama, 2004). This is a disappointing development as enrolment levels in primary schools continue to rise annually (EMIS, 2014), although in some areas levels are low. Consequently, increased enrolments have resulted in high pupil to teacher ratios which hamper the realisation of MDG No. 2 that provides for Universal Primary Education (UPE) (Kadzamira, 2006; United Nations, 2015).

Additionally, according to Kayuni and Tambulasi (2007), pre-service teacher attrition in Malawi is also due to inadequate in-service training, teaching and learning resources, as well as a lack of accommodation and extrinsic and intrinsic motivation and incentives. Likewise, low upkeep allowances and social status respectively contribute to high attrition rates (Kayuni & Tambulasi, 2007; Bennell & Akyeampong, 2007). However, many pre-service teachers remain

despite these challenges. It is hoped that this study will help towards the development of new approaches that could lower the barriers that prevail.

Given these reasons, teacher attrition poses significant and critical challenges to the country's education sector, particularly in the primary sub-sector, since it leads to understaffing and high pupil to teacher ratios (Mulkeen, 2005; Mulkeen, 2008; Kayuni & Tambulasi, 2007). Although the Malawi Government trains many teachers each year for all levels of education, teacher attrition is on the increase (Malloy & Allen, 2009). Hence, a significant number of pre-service teachers leave the profession either completely or they migrate to other non-teaching jobs. (Kayuni & Tambulasi, 2007). In addition, in a study in Malawi, Steiner-Khamsi and Kunje (2011) found that MoEST, as teachers' managing authority in Malawi, needs to research the exact reasons why teachers leave their profession, retention possibilities and how to improve the system's internal efficiencies.

Given these dilemmas, efforts to retain pre-service teachers become problematic, although paramount as retention also concerns the influence of many pertinent operational parameters including recruitment modalities and the mentoring of pre-service teachers. These aspects require proper consideration since they are vital to the management of pre-service teacher education programmes.

Apart from the retention issue, it is imperative to also consider pre-service teacher enrolment in Malawi. MoEST, in collaboration with development partners and the private sector, have invested human, material and financial resources in Malawi teacher training programmes (Rose, 2005; Davies, Harber & Dzimadzi, 2008). However, such investments are conditional, hence – and at least to some extent – they can derail efforts to increase enrolment. Many candidates enrol for training, but there are no deliberate efforts to invest in their retention as observed by Wendel and Mantil (2008) in a study in the Phillipines. Similarly, in United States of America, Waddell (2010) notes that training institutions spend more human and financial resources on recruitment rather than on retention initiatives.

1.6. Summary

This chapter presented the thesis overview regarding focus of discussion in the chapters that follow. Malawi's location, size, agro-based social economic status, population and the languages spoken by its people were highlighted.

The country's current education system, described as 5-3-4-4, was designed after the British system. This design portrays the number of years of primary, secondary school and university education. In primary schools, teaching generally occurs in substandard structures that have limited classroom space. A recommended Pupil to Teacher Ratio is 60 : 1 while practically it is 74 : 1 in most schools. This ratio has resulted in having more female teachers in urban schools than in rural areas. Out-of-school children are assisted through a Complementary Basic education programme which runs five days per week but implemented by school leavers.

In terms of policy development, the education system in Malawi is governed by the Education Act of 2013. The Act embraces the country's education policies which include Free Primary Education, Policy and Investment Framework, School Readmission, National Education Sector Plan and the National Education Policy. All policies support the Malawi Growth and Development Strategy, Education for All Goals, MDGs and Sustainable Development Goals.

Education financing in Malawi is provided by the Government and its Development Partners. Funds are used to construct new school blocks, purchase teaching and learning materials, implement initial teacher training and continuing professional development.

My role within DTED includes that of a Principal Education Officer responsible for coordination of both in-service and pre-service teacher education activities involving recruitment of prospective pre-service teachers into colleges.

Further discussion in the chapter concerned lack of studies on pre-service teacher education, varying completion rates in colleges and the need to explore retention mechanism.

Chapter 2: Literature Review

2.1. Introduction

This chapter discusses the findings of previous studies on teacher attrition and retention. In addition, it critically reviews the previous literature on pre-service teacher retention in both local and international context, particularly relating to hard-to-staff and high-risk schools. Specifically, the chapter reviews the literature on the causes and implications of teacher attrition, the characteristics of pre-service teachers, their retention and mentoring.

2.2. In-service teacher attrition

According to Johnson and Montes (2012), attrition is a measure of the loss in enrolment from one group of students to another group. On the other hand, Mäkelä, Hirvensalo, Laakso and Whipp (2014) assert that attrition occurs when teachers leave the teaching profession. Similarly, Nappinnai and Premavathy (2013) view attrition as the reduction of the teaching workforce due to resignation, death, retirement, and sickness. Thomas (2007) argues that teacher attrition assumes different forms, including permanent departure from the education system. On the other hand, attrition may occur in the form of qualified teachers changing schools or fields within the education sector.

Given these definitions, Mäkelä et al. (2014) asserts that teacher attrition has been the subject of extensive research in both developed and developing nations. According to UNDP (2013, as cited in Peet & Hartwick, 2015), developing countries have a slow rate of industrialisation, low per capita income, low Gross Domestic Product (GDP), high illiteracy rate, poor educational, transportation, communication and health facilities. They also have high levels of unemployment and poverty. On the other hand, developed countries have high standards of living, high GDP, and well established educational, transportation, communication and health facilities. They also have high per capita income and technological, industrial and infrastructural development.

Rossenblatt and Shirom (2006, as cited in Lischshinsky, 2009) report that studying teachers' attrition is paramount because oftentimes those who leave are the most qualified teachers (Skaalvik, E. & Skaalvik, S., 2011). On the international scene, some countries grapple with teacher attrition, although South Korea and Canada experience teacher surplus as reported by Pitsoe and Machaisa (2012). This scenario, according to the authors, is a result of better working conditions. In relation to South America, Dove (2004) indicates that teacher attrition is the largest factor behind a shortage of qualified school teachers. In the United Kingdom, attrition is equally prevalent (Bennell & Arkyampong, 2007). For example, Karsenti and Collin (2013) have reported that 40% of beginning teachers leave the profession within the first three years of service. Conversely, in Australia, Karsenti and Collin (2013) detail that 18% of women leave, while in Germany, France and Portugal, only 5% of teachers leave their jobs.

At a regional level, Petersen (2011), suggests that teacher attrition should be accorded serious attention, particularly in sub-Saharan Africa where such rates are high due to teacher transfers and poor working conditions. Pitsoe and Machaisa (2012) argue that teacher attrition in sub-Saharan Africa is a concern in many countries, and cite the observation by the New Partnership for African Development (NEPAD) that Africa continues to face many challenges in education. Such challenges include teacher attrition, which eventually affects the quality of education and UPE's implementation. However, due to contextual differences such as leadership styles (Masango, 2002), economic growth and structural changes (Lundvall & Lema, 2014), that prevail in some African countries, the quality of education and UPE implementation is less affected by teacher attrition because low-performing teachers can be replaced with more effective teachers (Adnot, Dee, Katz, & Wyckof, 2017). In Nigeria, Wushishi et al. (2013) indicate that policymakers, educational administrators, parents and students are concerned with the rate at which teachers leave the profession.

In Malawi, although there is no adequate data specifically for attrition of teachers within 2-5 years following their graduation, Steiner-Khamsi and Kunje

(2011) and MoEST (2014), have reported that, annually, about 3.2% of qualified teachers, regardless of how long they have taught, leave the profession. However, it is necessary to establish when qualified teachers in Malawi leave the profession, their proportion according to gender, the rural-urban divide, and their reasons for leaving.

Alongside this scenario, Chikazinga, Chulu and Nyirongo (2014) have reported that the attrition rate in Malawi's secondary schools is still increasing. For example, 12% of education graduates from the University of Malawi do not join the teaching profession on graduation due to low salaries and a lack of professional development opportunities. However, this situation is changing since alternative job opportunities are becoming scarce, hence they are now more inclined to join the teaching profession. Pitsoe and Machaisa (2012), Chikazinga, Chulu, and Nyirongo (2014) observe that teacher attrition is a substantial problem in Malawi since many newly-qualified female teachers leave the teaching profession, unlike their male counterparts. Many teachers leave or do not even join because of a lack of resources, extrinsic and intrinsic motivation and incentives respectively, a situation compounded by poor working conditions and other factors (Wachira, 2009; Munyi, 2012). Likewise, Kayuni and Tambulasi (2007) observe that apart from teacher attrition, Malawi continues to grapple with the impact of increasing learner enrolment, poor examination results, shortages of teaching and learning materials, and inadequate infrastructure, further exacerbating the problem of teacher attrition. On this note, development partners have implemented some interventions to counter the challenges highlighted by Kayuni and Tambulasi (2007). These interventions include the construction of new classroom blocks and training more teachers, however new challenges have emerged such as learner reading difficulties (Sailors & Kaambankadzanja, 2017).

It is worth pointing out the characteristics of teacher attrition. According to Ingersoll, Merrill and May (2014), subject specialisation, qualifications, and teachers' personal attributes such as their mental ability, ethnicity, gender, age and previous experience can be potential indicators of teacher attrition. However,

these characteristics may not be exhaustive and their impact on teacher attrition may also vary.

Regarding subject specialisation, Ingersoll, Merrill and May (2014) state that new mathematics and science teachers leave the profession at higher rates than other subject teachers. In addition, after the first year of teaching, 18% of science teachers, 14% of mathematics teachers and 12% of other subject teachers leave the profession. Similarly, in Malawi, Thembachako et al. (2015) have found that 60% of agriculture teachers exit the profession annually in order to take up lucrative jobs in non-governmental organisations. However, Simon and Johnson (2015) contend that school environment largely accounts for teacher movement patterns. Also, Vittek (2015, as cited in Billingsley, 2007) has argued that in the United States, the attrition rate of special education teachers, which is also determined by gender, is higher in the early years of their profession, and this is the major cause of the teacher shortage. This notion is relevant to Malawi, and this research study, because it highlights the complexity of retaining teachers in the first few years of service.

Sass et al. (2012) state that gender is related to teacher attrition since attrition rates are higher for males than females. Similarly, Quartz et al. (2008, as cited in Sass et al., 2012) observe that males are more likely to change jobs within the education sector than females. On the contrary, in Malawi, more female teachers than males leave rural schools to join their spouses working in towns. Similarly, in the sub-Saharan region, including Tanzania, Uganda, Ghana and also Malawi, there are difficulties in placing female teachers in rural schools due to their departure to urban areas (Mulkeen & Chen 2008). Although this is generally the case, in some areas the attrition rates for male teachers surpass that of their female counterparts.

Apart from the gender experience, in comparison to other occupations, Ingersoll (2012) has emphasised that all professions have staff turnover but, in a bid to address the situation, young teaching professionals are recruited as replacements. In this regard, Ingersoll and Perda (2009, as cited in Waddell,

2010), report that teacher attrition in the United States is higher than in other professions, with teachers leaving at twice the rate of nurses and five times that of lawyers. Ingersoll (2012) has also found that teacher attrition in the United States is about four percent higher than in other professions, although it is context specific. In Malawi, Kadzamira (2006) observed that teacher attrition has reportedly very high rates ranging between 15 – 19% across all education sectors. However, attrition rates across different professions in Malawi do not vary much, although health professionals oftentimes opt to work outside the country unlike teachers who join private schools within the country.

Given the situation cited above, it is critical that governments should invest adequately in education to make it equitable, relevant and responsive to the needs of society (Ministry of Foreign Affairs, 2008), as universal education continues to be a fundamental value and essential for national development, which is partly achieved through investment in education and can yield broader economic and social benefits (Ministry of Education, Science, and Culture, 2010). Similarly, UNESCO (1972, as cited in Nhamo & Nhamo, 2006), views education as a social service that does require significant national investment. In this regard, Nhamo and Nhamo (2006) have advocated for appropriate strategies in the education sector, to reach MDGs such as the eradication of poverty among the masses and increased access to primary education by 2015.

Although the MDGs came to an end in 2015 (United Nations, 2015), the post-2015 period up to 2030 has been titled the ‘Time for Global Action’ and provided for Sustainable Development Goals (SDGs) that call for more action by all national signatories to this treaty. Out of the 17 SDGs ratified by member states (United Nations, 2015), Goal No. 4 ensures inclusive and quality education for all the people and the promotion of lifelong learning. Therefore, amongst other pertinent education subsectors, investing in teacher training has become incredibly valuable in ensuring that the teaching profession receives the attention it deserves to improve the quality of education.

2.2.1. Pre-service teacher attrition

As some qualified teachers leave the profession, other pre-service teachers also withdraw whilst on training. It is, therefore, important to highlight pre-service teachers' attrition to understand its causes and implications for retention. In the case of Malawi, Kadzamira (2006) has reported that 15-19% of pre-service teachers leave their training before completion.

According to Wangenge-Ouma (2012), in South Africa, pre-service teacher attrition attracts debate among academicians, educators, civil society actors and politicians. In contemporary teacher education practice, some teacher educators and policymakers are concerned with the attrition of pre-service teachers more than the lack of infrastructure, teaching and learning resources. Relative to this development, in a study on African-American participants, Proctor and Truscott (2012) observe that pre-service teacher attrition has been a global problem for decades, hence the need for long-term solutions. Some nations, however, have attempted to make available financial, material and human resources to the education sector (Lung, Moldovan, & Alexandra, 2012) to mitigate education challenges including pre-service teacher attrition.

Although some governments subsidise the training and supply of qualified teachers to schools, in a study on American beginning teachers, Ingersoll (2012) reports that pre-service teacher attrition continues to impact on training institutions and broader education systems worldwide, including affecting student achievement (Ronfeldt, Loeb, & Wyckoff, 2013; DeAngelis & Presley, 2011). This situation is applicable in Malawi where according to Kayuni and Tambulasi (2007), teacher attrition is overwhelming, even by sub-Saharan standards, because the primary sector demands about 9,000 teachers annually, but the training institutions cumulatively produce about 4,000 new teachers only.

While attrition impacts training institutions, Coultas and Lewin (2002) studied the characteristics of students entering initial training in Ghana, Lesotho, Malawi, Trinidad and Tobago where the findings suggested that teacher training is critical to the achievement of universal access to effective primary school

education in developing countries. However, this idea does not only depend on teacher training since other factors ensure access. For instance, in Malawi, Kayuni and Tambulasi (2007) have observed that pre-service teacher attrition reduces the availability of newly qualified teachers in schools. This affects staffing levels, particularly in rural areas, hard-to-staff and high-risk primary schools. According to MoEST (2014), in Malawi about 9,000 new teachers are required annually to reduce the Pupil to Teacher Ratio from 74:1 to 60:1. Nonetheless, training institutions graduate only 4,000 teachers annually from an initial enrolment of approximately 4,800 pre-service teachers. This suggests that an average attrition rate of about 17% takes place per annum, thereby reducing the number of teacher graduates who would potentially teach in rural schools.

In relation to this development, in sub-Saharan Africa, Mulkeen, DeJaeghere and Chapman (2006) observe that many studies of teachers focus mainly on primary school education. As a result, few studies concentrate on pre-service teacher education, limiting the available information on teacher retention (Bennell & Akyeampong, 2007). Similarly, in Malawi, many studies devoted to teaching staff, focus on the causes of teacher attrition and other related aspects (Kayuni & Tambulasi, 2007; Brindley & Selinger, 2003). In Ghana, for instance, teacher retention issues receive little attention in teacher education research (Cobbold, 2015). Such limited attention has led to a lack of practical solutions and policies that could possibly solve both qualified and pre-service teachers' attrition problems.

2.2.2. Grounds for teacher attrition

Many reasons account for teachers' exiting of the profession. In a study on Australian education, Handal et al. (2013) observed that teachers leave due to geographical isolation, retirement, low salaries, job dissatisfaction, work overload, and organisational factors. The reasons for attrition in different contexts are multifaceted and sometimes overlap. However, the extent to which each reason causes attrition varies. According to a study in public and Catholic

schools around the world, Scheopner (2010) found that some reasons contribute to attrition in one situation, but not in another.

While the school environment impacts on teacher attrition, internationally, the specific issues are similar. While Vitteck (2015) cites poor job satisfaction, stress, work overload, and lack of support from administrators, Ingersoll, Merrill and Stuckey (2014) mention pregnancy, change of residence, student misbehaviour, and poor working conditions. These reasons are not exhaustive; indeed, they may not apply to all teachers who leave and may be applicable to different degrees in different contexts. For instance, in a rural district of Montana in the United States, Davis (2002) identifies low salaries, retirement, large workloads, lack of induction, and poor mentoring programmes as explaining teacher attrition. In Finland, teachers leave the profession due to poor pupil behaviour, administrative responsibilities, working conditions, reward and workload levels (Mäkelä et al., 2014). In China, teachers leave because of stress, low salaries, inadequate holidays, poor pupil behaviour and heavy workload (Liu & Onwuegbuzie, 2012). Similarly, Jain (2013) points out that in Western countries, teachers leave due to work overload, poor management practices, insufficient recognition and reward while in Indiana, Goodpaster, Adedokun and Weaver (2012) cite inadequate professional development and a lack of social amenities. However, according to Hong (2010), the influence of the above cited grounds for teacher attrition may differ, even though they are common factors.

Given the grounds for attrition in the international context, in the sub-Saharan Africa, particularly in South Africa, Mafora (2013) has observed that 55% of rural school teachers leave teaching because of poor school infrastructure. In Malawi, Kayuni and Tambulasi (2007) note that many reasons cause attrition. Kayuni and Tambulasi (2007) argue that teacher attrition is due to low salaries and teacher status, poor housing, and inadequate school infrastructure. Furthermore, in the Malawian context, despite efforts to train teachers in order to increase school enrolment (Kayuni & Tambulasi, 2007), teacher attrition results from many different reasons such as joining well-paying

professions or, as Steiner-Khamsi and Kunje (2011) suggest, due to deaths caused by the HIV/AIDS pandemic.

The grounds for teacher attrition have varying impacts across the gender-divide as observed by Kay, Alarie and Adjei (2016). In addition, Curtis (2012) claims that, in some instances, the most intellectually able women leave the profession because other jobs are more rewarding. Similarly, in a study conducted in Indiana, Tippens et al. (2013) have observed that attrition of women teachers is primarily due to pregnancy and childbearing. In another US-based study, Deutsch and Yao (2014) found that women teachers leave the profession more than men because of work-family conflicts. However, the causes for gender differences in teacher attrition may not be the same in different contexts. Also, the reasons for and rate of women's attrition levels may not always be the same as for men, though in some instances they are similar. According to Mulkeen and Crowe-Taft (2010), in the sub-Saharan Africa, attrition of female teachers may be higher than that of males because they may be less willing to take up teaching posts away from their husbands' place of work. In Malawi too, female teachers are unwilling to teach in the rural schools (UNESCO, 2014) thereby creating both a teacher shortage and perhaps more significantly a lack of role models for school girls in the rural areas.

2.2.3. Effects of teacher attrition

Given the role of gender differences in teacher attrition, in separate studies in Malawi, Kayuni and Tambulasi (2007), Moleni and Ndalama (2004) and Kadamira (2006) observe that teacher attrition affects the education sector in many ways including school understaffing. This idea is corroborated in a study in Kenya by Nyakora (2016) who argues that schools are chronically understaffed due to instructor turnover. Hence, the teaching and learning process is affected, since there are fewer teachers rendering the service. However, in a study on teacher transfer characteristics in Kenya, Onsomu (2014) postulates that even where attrition takes place, sometimes it does not lead to understaffing,

especially when teachers are transferred from overstaffed to understaffed schools. Overstaffing can lead to other problems such as school efficiency being compromised because school management becomes problematic. Ironically some staff attrition becomes necessary. The relevance of this notion in the Malawian context cannot be overemphasized. DeStephano (2013) argues that teacher mobility to rural understaffed schools is a necessity since most urban schools in Malawi are overstaffed due to poor deployment practices (Mulkeen, 2009). The practice is that female teacher placement takes into consideration the location of the spouse who oftentimes work in urban areas (Akiba, 2013).

As school management becomes more problematic due to overstaffing, Faraher (2008) notes that high teacher attrition rates also have a negative impact on school effectiveness. According to Scheerens (2013), school effectiveness refers to the level of a school's goal attainment including learner performance. Ronfeldt, Loeb and Wyckoff (2013) assert that teacher attrition affects the performance of students, hence impacting on school effectiveness. In Australia, Handal et al. (2013) have observed that high rates of teacher attrition affect the quality of the remaining teaching force, school programmes, continuity and planning, student learning, thus attrition potentially has cost implications. This situation is also relevant to Malawi. According to Kayuni and Tambulasi (2007), some teachers are uncommitted and unmotivated because of low salaries and poor housing, resulting in serious consequences for learners and overall school effectiveness.

2.2.4. Cost of teacher attrition

While contextual factors account for teachers' decision to leave (Sass, Flores, Claeys, & Perez, 2012), attrition generates significant costs. For example, in a study on American special teachers, Boe, Bobbit and Cook (1993, as cited in Croasmun, 2000), and Barnes, Crowe and Schaefer (2007), agree that attrition has cost implications associated with recruiting, hiring and training of replacement teachers. Likewise, in New South Wales, Buchanan et al. (2013) observe that the cost of teacher attrition substantially affects both taxpayers and

the government. Hence, the departure of teachers deprives the education system of the much-needed human resources meant to benefit communities (Buchanan et al., 2013).

The issue of the cost of teacher attrition is also a feature in the Malawian context. Kayuni and Tambulasi (2007) assert that it creates an unstable workforce and increases human resource costs through training of replacement teachers. Similarly, in the sub-Saharan Africa, Lindqvist (2014) observes that teacher attrition exerts some financial costs through training of additional teachers. However, training more teachers is not a viable solution if the causative factors behind teachers' departure are not addressed.

2.2.5. Mentoring and attrition

Furthermore, attrition also impacts on the mentoring of beginning teachers (Ingersoll & Strong, 2011). In this regard, when well-qualified mentors leave their job, beginning teachers are deprived of professional support. Similarly, when beginning teachers leave, mentors can become frustrated because their skills are underutilised in this context. In a study in England, Hobson (2012) argues that schools with better mentoring arrangements have lower attrition rates. Connelly & Graham (2009) assert that it is essential to thoroughly prepare teacher education mentoring programmes to ensure the retention of pre-service teacher. In addition, proper preparations may reduce the rate of attrition if the mentoring aspect is well planned. This scenario is also prevalent in Malawi where the attrition of mentor teachers renders pre-service teachers unsupported and more vulnerable. According to Mwanza (2015), when mentor teachers in Malawi leave their job, the remaining pre-service teachers lack the requisite professional assistance and their performance is affected.

2.3. Retaining teachers

Given that schools experience attrition, it becomes necessary to consider ways and means of retaining teachers. While in the business world the success

of a firm depends partly on the retention of its employees (Goswami & Jha, 2012), similarly, retaining teachers in schools is a critical task that also helps to bring about success. Hence, in a study on teacher education graduates in New South Wales, Buchanan et al. (2013) found that the retention of quality teachers is a priority for the profession. However, the success of a school does not only depend on making teachers stay in post. In this regard, Inman and Marlow (2004), studying Georgia, argue that as beginning teachers continue to leave the profession after the first years of entry, teacher-educators must identify factors that cause teachers to remain in post. In Malawi, Selemani-Meke (2013) and Mtika and Gates (2011) assert that the retention of pre-service teachers in colleges and universities needs to be given a higher priority, since attrition has long been a real concern for teacher trainers. In this context, there are multiple factors that influence teachers to stay in schools as detailed below.

2.4. Factors for retaining teachers

First, the induction of beginning teachers contributes to their retention as observed by Bonds (2015). Similarly, in a study of Dutch urban primary schools, Gaikhorst et al. (2014) found that the induction of beginning teachers contributes to their retention. However, retention may depend on the effectiveness of an induction programme in a setting. They further argue that a school's support structure and culture contribute to effective induction practices, hence the need to promote the retention of beginning teachers. In this case, according to Gaikhorst et al., support structures refer to activities that a school organises to help beginning teachers grow professionally while support culture relates to the extent to which the culture of a school backs up beginning teachers, including the provision of advice from veterans. Hence, identifying the real school cultures and the support mechanisms that influence the retention of beginning teachers is worthwhile. Although in Malawi, pre-service induction focuses mainly on the nature of a teaching career, Cobold (2007) observed that in most sub-Saharan countries (including Malawi) there is little formal induction for newly qualified teachers which has a corresponding effect on retention.

Second, in an Australian study, Tonkin (2016) argues that creating innovative school cultures is part of knowledge investment. In this regard, Plecki et al., (2005) postulates that knowledge investment in school leadership is another teacher retention factor. Barnes et al. (2007) have observed that improved school administration could help retain teachers and thus reduce the costs associated with teacher turnover. In addition, Mulkeen (2007) argues that many school administrators do not meet the demands posed by the changing nature of their jobs. Hence, Mulkeen purports that organised and systematic training in educational leadership is urgently needed to ensure the transparent management of teachers to ensure their retention.

Thirdly Fischer, Schult and Hell (2013) have identified more retention factors that include learners' intelligence and achievement motivation. In this regard, when learners perform well, their teachers feel encouraged in their work. In the sub-Saharan Africa and Malawi in particular, Mulkeen and Chen (2008), note that due to inadequate teacher retention in rural schools, leading to a high PTR of 74:1, there is low pupil participation which results in lower achievement levels. It is for this reason that Milner, Mulera, Chimuzu, Matale and Chimombo (2011) observed that the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ) results for reading and numeracy skills in Malawi primary schools are lower in the rural schools.

2.4.1. Retaining teachers in rural areas

Goodpaster, Adedokun and Weaver (2012) argue that, in rural areas, school authorities often struggle to attract and retain high-quality teachers. Therefore, it is necessary to examine the characteristics of rural locations in order to formulate workable retention strategies. In Malawi, Kayuni and Tambulasi (2007) also observe that the Government finds it difficult to retain teachers in schools. Given this concern, Monk (2007) has identified features of rural areas that include their small size, sparse settlement, distance from population concentrations, and economic reliance on agricultural activities. In addition, many rural areas – though not all – are severely impoverished.

Given these rural characteristics, in Malawi, attaching pre-service teachers to such rural schools helps to prepare them before they become qualified. However, and as observed by Malloy and Allen (2007), through a study at Nurtureville Elementary school in the USA, such rural areas require recruiting and retaining of teachers. On the contrary, in a study in Indiana, Goodpaster, Adedokun, and Weaver (2012) observed that in some rural areas retaining teachers is not a problem especially where there are good interpersonal community relationships and school structures.

While some factors motivate teachers to serve in the countryside, Handal et al. (2013) observe that one way of retaining experienced and qualified teachers in rural schools is to provide them with opportunities to grow professionally. In Malawi, Meke and Rembe (2014), argue that provision of Continuing Professional Development (CPD) opportunities to teachers boosts their morale and influence retention although sometimes does not improve classroom practices due to other factors.

In addition to this observation, teacher recruitment in rural settings has a bearing on retention. Mulkeen (2006) advances the idea of following a targeted recruitment modality. In a related study conducted in the US, Hammer et al., (2005) indicate that recruiting and developing local talent is a strategy with a high potential in terms of retaining teachers in rural areas. They argue that this strategy results in a pool of teacher candidates who are already familiar with the rural lifestyle and are also rooted in the community by family or other connections. This recruitment modality which is also practised in Malawi, necessitates identifying candidates with rural backgrounds, discouraging the negative stereotypes surrounding rural schools, and stressing the benefits of teaching in such locations. Mulkeen (2006) further argues that higher education institutions could help recruit teachers for the countryside by encouraging students to visit rural districts, advocating the positive aspects of rural teaching, inviting rural educators to be guest lecturers and providing rural internships.

2.4.2. Teacher retention in hard-to-staff schools

Given the factors that contribute to teacher retention, it is important to consider the dynamics that affect rural areas, which are usually hard-to-staff and carry a high risk of teacher turnover. Morgan and Kritsonis (2008) recognise that hard-to-staff schools are those with a high percentage of socio-economically disadvantaged students, where the teaching environment is challenging, and schools are in undesirable locations. Catapano and Huisman (2013) suggest that hard-to-staff schools exist in both urban and rural settings and have unfavourable work conditions. In a study conducted in Ohio, Yonezawa, Jones and Singer (2011) have defined hard-to-staff schools as those with a high student population and fewer teachers than required. Semke and Sheridan (2012) have characterised rural hard-to-staff schools as having inadequate and poor resources, with high teacher turnover and inexperienced and poorly prepared teachers. In Malawi, according to Kayuni and Tambulasi (2007), many teaching practice schools in the countryside are hard-to-staff due to a lack of basic amenities, poor infrastructure in addition to having inadequate teaching and learning materials.

Despite the various definitions of hard-to-staff schools, it may be incorrect to suggest that rural schools that have inexperienced teachers are also hard-to-staff. Moreover, a rural school can have few but experienced teachers, hence qualifying as hard-to-staff. This idea implies that for a school to be termed hard-to-staff, specific features need to be present. In this regard, Hobbs (2012) indicates that teacher shortages in rural hard-to-staff schools exist in particular for those specialising in the sciences, hence the need to make further retention efforts. This applies to the Malawian context because science teachers are deemed by Mtike (2011) to be inadequate and Kadzamira (2006) suggests that it is also hard to retain them.

Given the description of hard-to-staff schools, the provision of support to teachers as a retention mechanism becomes paramount. In a research study conducted in South East Carolina, Beckett (2009) found that administrative

support is a factor with significant influence on teacher retention. Similarly, in a related study on the relationship between a principal's support and teacher retention, Hughes (2012) reports that the principal's support of teachers in hard-to-staff schools has a substantial impact. The support is perceived to be broad ranging, encompassing manageable workloads, proper teaching assignments, ample planning time, adequate teaching supplies and well-maintained school infrastructure. According to a study at the University of California, Freedman and Appleman (2008) found that such support also includes helping teachers to develop and refine their emerging professional identities that are pertinent for their retention. In addition, the support also includes facilitating pre-service teachers' acquisition of sense of belongingness which is paramount for retention purposes. In this regard, Nykvist (2016) argues that a sense of belonging is one of the most important needs of all pre-service teachers to function well in learning environments and has an impact on their retention. In this regard, in Malawi, pre-service teachers can acquire a sense of belonging once they obtain teacher qualifications since they enjoy the benefits and privileges of a qualified teacher and that influences their retention too (Nkhokwe, Ungapembe & Furukawa, 2017). Since support to teachers influences their retention, Morgan and Kritsonis (2008) suggest that providing mentoring, professional development, financial incentives, and involving teachers in decision-making enhance the retention of new teachers in hard-to-staff schools, whether in urban or rural areas.

2.5. Mentoring and retention

Brondyk and Seaby (2013) define mentoring as a relationship between an older, more experienced teacher and a less experienced one. Additionally, Mignott (2011) indicates that mentoring in the historical sense refers to the passing on of valuable skills from one person to another. In this case, Mignott does not stress the element of experience during sharing of the valuable skills from one person to another. Also, Bloomberg (2014) defines mentoring as a process whereby a mentor provides advice and feedback in the context of the

culture and politics of an organisation. This definition is inadequate as it limits the mentoring process to organisational culture and politics.

In view of various definitions of mentoring, Hobson et al. (2009) and Bullough (2012) assert that there are potential benefits and costs associated with mentoring. For instance, in a research study conducted in the US on mentoring effectiveness and the anticipated turnover of K-12 teachers, Morina (2010) found that a formalised and consistent mentoring programme for first-year student teachers is effective in terms of their acclimatisation and retention. Morgan and Kritsonis (2008) believe that mentoring is good for retention purposes. These ideas are applicable in the Malawian context because pre-service teachers conduct their teaching practice in rural schools in part to prepare them for deployment to similar settings once they graduate. Indeed, Mwanza, Moyo and Maphosa (2015) argue that mentoring pre-service teachers in Malawi is pivotal for quality of teacher development during teaching practicum.

Regarding mentoring as a support mechanism, Ingersoll and Smith (2004) indicate that beginning teachers who receive multiple levels of support are less likely to move to other schools or to leave the teaching occupation altogether after their first year. Conversely, according to Long et al. (2012), some forms of assistance and support do not increase beginners' retention. Although this idea may be true in some schools, it may not apply in others. The reason is that the amount of support rendered may influence teachers' retention. For example, if schools provide little support to teachers, the latter may decide to leave. Extending this argument, Lunsford et al. (2013) suggest that conventional conceptions of mentoring may only be a marginal factor in the survival of teachers during their first year, in which case mentoring is just one component in teacher retention among others. In Malawi, although support for beginning teachers is limited, there are some efforts to improve this situation, for instance, pre-service teachers on the ODL training mode are professionally supported by being given a low-cost MP3 player which has pre-recorded lessons on literacy and numeracy.

In this context, in a related US-based study, Barrera et al. (2010) have identified the most difficult aspects of mentors' duties. The aspects include conflicts with the mentee, receiving little administrative support (e.g. limited time to meet with beginning teachers), and no guidelines as to what they are expected to do. However, as observed by Brown (2012), the problem of sporadic conflicts between pre-service teachers and mentors is inevitable since the people involved are obviously drawn from diverse personalities. Therefore, the various aspects experienced during a mentoring initiative affect the retention of teachers.

Given these mentoring dimensions, in Malawi pre-service teachers are assigned long-serving teacher mentors for the entire duration of their teaching practice. The mentors are expected to instil professional skills and good conduct among the pre-service teachers. Whether the mentoring initiative helps pre-service teachers still needs to be determined. In Malawi, mentors have relevant experience, though they received their training a long time ago, hence may lack contemporary knowledge and skills.

This literature review has suggested that teacher attrition is a concern in many developing and developed countries because it jeopardises school standards, motivation and efforts. It is characterized by subject specialisation, qualifications, and teachers' personal attributes such as their mental ability, ethnicity, gender, age etc. The reasons attributed to attrition include geographical isolation, retirement, low salaries, job dissatisfaction, work overload, and organisational factors. In Malawi, teachers leave due to low salaries and teacher status, poor housing, and inadequate school infrastructure. Hence, it is important to consider attrition in view of the teachers' professional identity such as value, commitment, efficacy, emotion, knowledge, and beliefs. As some qualified teachers leave the profession, other pre-service teachers also withdraw whilst on training. Therefore, studying pre-service teachers' attrition is important to understand its causes and implications for retention.

This literature also portrays that retention of teachers is achieved through proper induction and mentoring, providing opportunities for professional growth

and recruitment modalities. Whilst in rural areas school authorities often struggle to retain high-quality teachers, it is necessary to examine the characteristics of rural locations to formulate workable retention strategies. In addition, the provision of support to teachers as a retention mechanism becomes paramount. The support takes the form of helping teachers to develop professional identities and a sense of belongingness which are paramount for retention purposes.

However, the literature appears to focus more on attrition and retention of already qualified teachers serving in schools while there has not been much research on pre-service teachers' retention regarding their age and gender, recruitment and mentoring, particularly in the Malawian context. Therefore, this research study has portrayed a knowledge gap regarding the extent to which these aspects facilitate pre-service teachers' retention.

2.6. Research Purpose

Having reviewed the literature, this section outlines the purpose of the study. As exemplified in the literature review, the existing research studies focussing on pre-service teacher retention are limited in number and, as such, there is a knowledge gap concerning the retention of pre-service teachers in Malawi. Therefore, the purpose of this research study is to examine the factors that influence the retention of pre-service primary school teachers in Malawi, with a focus on recruitment and mentoring. Therefore, to achieve the research purpose, research questions were developed.

2.7. Research Questions

Having outlined the research purpose of this study, the specific research question was: *What factors influence the retention of pre-service primary teachers in Malawi?*

Hence, based on the Malawian context and to answer this primary research question, this study explored the following secondary questions:

1. To what extent does age and gender affect pre-service primary teachers' intention to complete training in Malawi?
2. How can recruitment procedures and mentoring practices influence the retention of pre-service primary teachers in Malawi?
3. What strategies do primary teacher education institutions follow to promote retention in Malawi?

These research questions explore in detail the demographic aspects that relate to pre-service teachers' completion of training. The questions also establish the influence of pre-service teachers' recruitment and mentoring on retention process in Malawi. Furthermore, the research questions explore strategies that teacher training institutions put in place to ensure that pre-service teachers remain in training. In addition, the questions reveal issues surrounding pre-service teachers' completion of training. Given this explanation of the research questions, the following section explains the significance of this research study.

2.8. Significance of the study

Given the rationale of the study's secondary questions, this section outlines the significance of conducting this research endeavour. For instance, this study generates useful and strategic information for the Ministry of Education regarding how to properly manage the teacher education subsector in Malawi. In this regard, given the high teacher attrition rate in Malawi with an average PTR of 74:1 (Education Management Information System [EMIS], 2012), this study will enable the Ministry to properly strategise the management and retention of both qualified and pre-service teachers. In addition, this research study highlights the reasons why pre-service teachers withdraw from their training and the pertinent factors that influence them to stay in training.

2.9. Chapter Summary

This chapter has discussed the findings of various related research studies including a critical analysis of the literature on the attrition and retention of teachers as critical phenomena that pose a significant challenge in primary teacher education.

The analysis finds that all those with a vested interest in education are rightly concerned with teacher attrition, hence, it attracts research in both developing and developed countries. In this regard, developing countries have slow industrialisation, low per capita income, low Gross Domestic Product (GDP), high illiteracy rate, poor educational, transportation, communication and health facilities. On the other hand, developed countries have high standard of living, high GDP, excellent educational, transportation, communication and health facilities, high per capita income, technological, industrial and infrastructural advancement.

Given this information, as some qualified teachers leave the profession, other pre-service teachers withdraw whilst on training. Hence, in this literature review, according to Kayuni and Tambulasi (2007), in Malawi the exiting of qualified teachers and withdrawal of pre-service teachers is attributed to low salaries, poor social amenities, diminished social status, geographical isolation, job dissatisfaction, poor housing, inadequate school infrastructure and work overload.

Besides discussing the grounds for attrition, this chapter also specifically reviewed the literature on teacher retention in rural and hard-to-staff schools. The review finds that in hard to staff schools, teachers can be retained through many ways including induction as part of a school culture and providing them with opportunities for professional growth.

Given the teacher retention factors, the chapter also reviewed some aspects of mentoring as a determinant of teacher retention, finding that teacher mentoring is essential since it facilitates pre-service teachers' professional success. The review finds that beginning teachers who receive support through

mentoring are less likely to move to other schools or to leave the teaching occupation altogether after their first year (Ingersoll & Smith, 2004).

However, the literature seems to focus more on attrition and retention of already qualified teachers serving in schools while there has not been much research on pre-service teachers' retention regarding age and gender perspectives particularly in the Malawian context. Therefore, this review portrays a knowledge gap regarding the extent to which these aspects facilitate pre-service teachers' retention. In the foregoing, the Malawian context lacks comprehensive and practical knowledge regarding the retention attributes of pre-service teachers.

In summary, this literature review has found that retention can be influenced by conducting induction of newly recruited pre-service teachers, investing in school leadership knowledge and ensuring learner achievement in schools. In the rural settings, retention can be achieved by placing pre-service teachers in rural schools to get used to the environment, encouraging teacher-community relationships, providing teacher professional growth, recruiting pre-service teachers with rural background, providing mentoring services and ensuring that teachers have a sense of belongingness to their profession.

The next chapter, therefore, discusses the research methodology used to establish how age, gender, recruitment procedures, mentoring practices and strategies impact on pre-service teachers' retention in the Malawian context.

Chapter 3: Methodology

3.1. Introduction

Following the literature review, this chapter outlines and justifies the methodological framework and research design adopted in this study. It also discusses the sampling procedures, ethical considerations, data collection and analysis methods, and, provides the rationale for choosing them. The purpose of this research study was to examine the factors that influence the retention of primary school pre-service teachers in Malawi. The study explored the following secondary questions:

1. To what extent does age and gender affect pre-service primary teachers' intention to complete training in Malawi?
2. How can recruitment procedures and mentoring practices influence retention of pre-service primary teachers in Malawi?
3. What strategies do primary teacher education institutions follow to promote retention in Malawi?

Given these secondary questions, the following section discusses the design of the study detailing the rationale for the chosen research paradigm, data collection methods and analysis.

3.2. Research design

Dovona-Ope (2008) states that context and nature of a research problem are important factors when deciding on an appropriate research design. In this study, an overall strategy integrated all the design components in a coherent and logical way to adequately address the research problem. However, many other factors account for a research design (Maxwell, 2012; Creswell & Hanson, 2007). Hence, the design of this research study considered the Malawian context about

location, the flexibility and availability of research participants, cost implications, and ethical requirements. In addition, the research design considered the nature of the research problem, the practicality of the research questions, the guiding theoretical framework, and research paradigm.

3.2.1. Research paradigm

As part of the design of this study, a research paradigm was chosen to guide the project. On this subject, Tashakkori and Teddlie (2009) and Creswell and Plano (2007, as cited in Hall, 2012), define a paradigm as a 'world view' and a set of assumptions on how certain things work. Similarly, Mack (2010) defines a research paradigm as an overall theoretical framework constituting logically-related assumptions, conceptions or propositions that orient the thinking and conduct of a research study.

Regarding these research paradigm definitions, a pragmatic paradigm underpinned this research study. Mertens (2012) indicates that a pragmatic paradigm is a worldview that supports the use of mixed methods in a research study. In this regard, the mixed methods approach was compatible with the pragmatic paradigm that underpinned this research study. The pragmatic paradigm enables the use of both quantitative and qualitative data collection techniques and evidence analysis (Mackenzie & Knipe, 2006; Creswell & Tashakkori, 2007). Also, its use assumes that there is no single method that is exclusively appropriate for doing research (Mertens, 2012).

3.2.1.1. Rationale for applying the pragmatic paradigm

Given the choice of pragmatism in this study, the paradigm was used to explore and thoroughly understand diverse issues that support the retention of pre-service teachers in Malawi. On this note, given the research problem in this study, whereby teacher attrition in Malawi steadily increases (Kayuni & Tambulasi, 2007), despite the Government training many teachers each year,

applying a pragmatic paradigm was relevant. As corroborated by Goldkuhl (2012), the paradigm was relevant because it helped to identify the knowledge, action and intervention required from a multiplicity of sources in order to address the research problem. In addition, the pragmatic paradigm encompassed all possible approaches to understanding the research problem of pre-service teacher attrition (Creswell & Hanson, 2007) in order to explore practical retention strategies.

Furthermore, applying the paradigm enabled a holistic investigation of the research problem to obtain answers to the research questions. The reason for carrying out a holistic investigation was to enable a full and complete understanding of pre-service teacher attrition in order to clearly understand the various practical aspects for retaining pre-service teachers. In this case, the paradigm was appropriate because it helped to find answers to the research questions that sought practical solutions to the problem of retaining pre-service teachers in the Malawian context. In this regard, since Felzer (2010, as cited in Hall, 2012) argues that the pragmatic paradigm focuses on solving practical problems in the 'real world', applying this paradigm helped to explore the practical knowledge to influence pre-service teachers to stay in their training.

3.2.1.2. Challenges of the pragmatic paradigm

Despite the above rationale for applying pragmatism in this study, using this paradigm resulted in certain limitations of each of data collection and analysis method, as will be explained in the later sections of this chapter. On this issue, Hall (2012) argues that using the pragmatic research paradigm in a given context is not always possible, although the paradigm applies well in social science and management research studies.

Furthermore, Hall (2012) points out that the pragmatic paradigm fails to offer a coherent rationale due to the lack of a precise definition of 'what works' in a research study. However, applying the pragmatic approach works better when collecting complementary data.

Regarding whether using pragmatism works or not, Salehi and Golafshani (2010) argue that the approach has a philosophical and epistemological challenge. According to Sale, Lohfeld, and Brazil (2002), the challenge includes combining different views of both the reality and phenomena under study.

3.2.1.3. Mixed methods approach

Given the choice of the paradigm discussed in the preceding section, this study, therefore, applied a mixed method approach. According to Creswell and Clark (2007), a mixed method research is described as a philosophically-underpinned inquiry combining quantitative and qualitative methods of research. The mixed method approach was well suited to this research study because using multiple data collection and analysis methods resulted in obtaining relevant and complementary responses from the participants. In addition, the approach enabled an increase in knowledge that could not be achieved by either method alone.

Using the mixed method approach in this study facilitated data triangulation. It was important to use triangulation because the data derived from the multiple methods complemented each other. According to Heale and Forbes (2013), triangulation enables comparison of the data from multiple and distinct research methods. In this study, the use of multiple data collection and analysis methods helped to compare and validate the research results from each of the methods although in some instances the data was not comparable. Furthermore, according to Creswell (2003), the main objective of triangulation is to corroborate, cross-validate and confirm findings within a single study.

Besides data triangulation, this approach also ensured the convenience of obtaining responses from the research participants. The number of participants determined the effectiveness and convenience of using a particular data collection method. In this regard, Mannix, Wilkes and Daly (2014) argue that mixed methods approach offers convenience to research participants when responding to questions. Some participants prefer to use one method to provide

their input while others favour an alternative. However, multiple data collection methods sometimes lead to the accumulation of large amounts of data that may pose a challenge during analysis. In addition, ensuring convenience for participants in relation to providing their responses also compromises the data's quality and completeness. For instance, some participants may not express themselves well when using a given method, while another method may allow them to do so quite well.

Regarding participants' ability to express themselves well, Creswell and Plano-Clark (2007) and Mertens (2005a, as cited in Dovona-Ope, 2008), argue that the mixed methods approach allows researchers to engage with culturally diverse communities. This assertion was important in this study because Malawians have diverse cultural attributes (McCracken, 2012). While some express themselves well in a face-to-face interview, others are comfortable articulating themselves fully in a questionnaire. Therefore, allowing the research participants to express themselves through alternative means of data collection provides more possibilities for greater insights.

Given the rationale of applying mixed method approach in this study, a concurrent mixed method or concurrent triangulation approach was adopted as illustrated in figure 2.

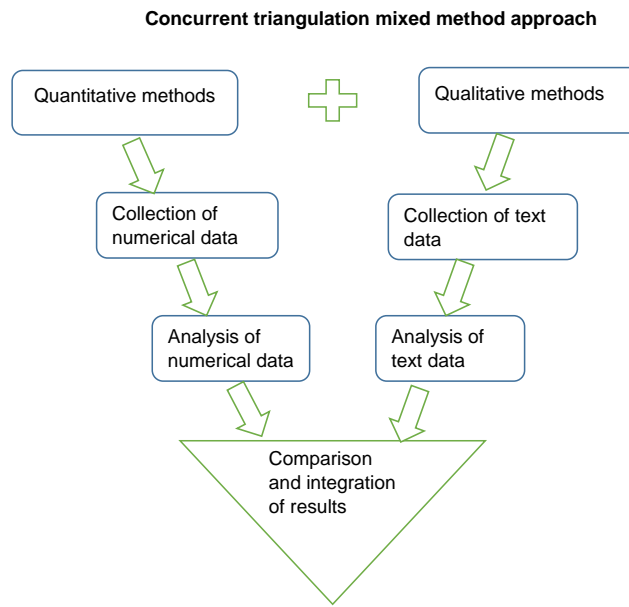


Figure 2. Concurrent mixed method approach

According to Tashakkori and Teddlie (2003), a concurrent mixed method approach is preferable when a researcher uses separate quantitative and qualitative methods at the same time to offset the weaknesses inherent within one method while cross-validating and corroborating research data. In this study, the weakness occurred where some research questions could only be answered using quantitative method only while others required using the qualitative method. In this regard, as advocated by Warfa (2016), both quantitative and qualitative methods were concurrently applied of which the findings were integrated at the interpretation stage with regard to convergence, divergence or contradictions of the data, as reflected in the discussion chapter.

3.2.1.4. Challenges of mixed method approach

Using the mixed methods approach in this study was costly and time-consuming, as observed by Abowitz and Toole (2009). The high cost resulted from travel expenses incurred during the data collection period. Furthermore, it was a lengthy process to collect all the data generated from the approach.

However, in this research study, developing short questionnaires and administering them to selected and easily accessible participants resolved the challenges of cost and the lengthy data collection process.

Furthermore, quantitative and qualitative methods could not entirely be used for triangulation and cross-validation purposes as it is presumed that triangulation of numbers with other data types is better than triangulating other types of evidence with observations and interview data (Sale et al., 2002).

3.2.2. Theoretical framework

According to Anfara and Mertz (2014), a theoretical framework serves as a guide to the systematic identification of research variables, research questions, methods, and data analysis processes. A human capital theory (HCT) guided this research study. This theoretical framework was applied to understand and contextualise the retention phenomenon evident in primary teacher education in Malawi.

3.2.2.1. Human Capital Theory

Minica (2011) defines human capital as the physical and intellectual aptitudes characterising labour, humans' creative capacity, and the effort necessary for the acquisition and improvement of skills. According to Olaniyan and Okemakinde (2008), human capital refers to the investments people make in themselves that enhance their economic productivity. Also, Olaniyan and Okemakinde state that the theory relates to the possession of the knowledge and skills necessary for individuals' workplace productivity. Although human capital includes acquisition of knowledge and skills, other capabilities such as social and personal attributes that help produce economic value also constitute human capital.

In this regard, in Malawi, following the implementation of free primary education in 1994, the aim was to quickly build human capital by massively expand primary teacher numbers through training more people. The country,

being poor with a predominantly rural population and a small proportion of post school educated people, the challenges are significant.

Based on the different definitions of HCT – which was first advanced by Schultz in 1961 (Larson & Maxcy, 2016) – owes its origins to labour economics whereby workers' marketable skills have a bearing on investment incentives and the structure of wages and earnings. Therefore, this theory is influential in all sectors of the economy, including education. Hence, the theory concerns the acquisition of knowledge, skills and the technical know-how relevant to efficient service delivery in workplaces.

Given the description of HCT outlined above, Zhao (2008) argues that as a result of the continued development of the knowledge economy, the theory's application has received significant attention from scholars around the world. However, not all critics accord much importance to this theory since other philosophies drive their research endeavours. According to Fernando and Fernando (2014), HCT influences individuals' choice of occupation based on their essential knowledge and skills. Additionally, people with relevant technical know-how assess the potential benefits and costs of joining and remaining in a particular field. However, some individuals choose certain professions, not because they have the relevant knowledge and skills, rather they just have a strong liking for that profession. In this regard, HCT suggests that schooling invests in the necessary knowledge, skills and capabilities that are paramount for the productivity of individuals in their workplaces (Minica, 2011). This idea is corroborated by Tan (2014), who argues that HCT postulates that individuals invest in education and training in the hope of earning a higher income in the future. However, Holden (2009) argues that investing in education does not always lead to receiving higher incomes because others who have not invested substantially in their education have higher incomes.

3.2.2.2. Relationship between human capital theory and education

Since investing in education has a bearing on individuals' economic status, Minica (2011) contends that education and professional training are the most important human capital investments. Furthermore, Minica also claims that the provision of education results in the development of human capital. According to Olaniyan and Okemakinde (2008), HCT emphasises that education and professional training increase workers' productivity and efficiency. Hence, the provision of formal education is a productive investment in individuals' human capital. Similarly, the theory applies to teaching careers since individuals that join teacher training programmes are provided with the knowledge and skills relevant to their professional productivity. In this regard, the pre-service teachers' acquisition of human capital might influence whether they complete their training or not. However, despite the pre-service teachers acquiring the necessary knowledge and skills during training, some of them decide to withdraw.

Having highlighted the relationship between HCT and teacher training, it was appropriate to apply this theory in this research context given that knowledge and skills related to teaching pedagogies and learning are imparted to the pre-service teachers during their training. Hence, the pre-service teachers' acquisition of knowledge and expertise equips them with significant human capital, which is useful for their productivity and efficiency in teaching positions. Furthermore, possession of significant human capital helps them to assess the teaching profession's long-term benefits and challenges, and consequently decide whether to remain in or leave teacher training.

While it is essential to ascertain the impact of the amount of human capital on pre-service teachers' retention, there are some notable experiences in the African context. For instance, Appleton and Teal (2007) have observed that the African continent achieved rapid growth in some aspects of human capital, particularly because of the expansion of education and despite starting from a low-level economy. However, Appleton and Teal (2007) observes that the expansion of the human capital stock does not correspond to a rise in physical

capital and further argues that the result has been a slow growth in incomes and low returns in the educational investment, hence affecting human capital development in the teacher education subsector. In a study in Malawi, Chirwa (2004) found that human capital development is key to poverty reduction on the understanding that a healthy and educated nation leads to increased productivity, better income distribution and a generally improved standard of living.

In view of the African scenario – and particularly in the Malawian context – the use of HCT in this research study aligned well with the research questions. The research questions aimed at establishing the knowledge and skills acquired by the pre-service teachers through training as part of their human capital development. Similarly, the use of this theory worked in parallel with the research's methodology. For instance, the pragmatic research paradigm adopted in this study implied using mixed methods for data collection. Hence, the mixed methods used featured questions that established the level of participants' human capital necessary to influence pre-service teachers' decision as to whether to complete or leave teacher training.

3.2.2.3. Criticism of human capital theory

Despite the relationship between HCT and education, Krul (2010) has criticised the theory on the basis that, although the acquisition of knowledge and skills increases an individual's human capital, it is just an enhancement of capabilities required to work. Additionally, Krul argues that any 'improved' human capital involves an improvement from the perspective of capital, and not from the standpoint of the person involved. However, this criticism is insufficient because where one's capabilities improve because of the acquisition of knowledge and skills, it also means the whole person improves. In this regard, any increase in one's productivity follows because of the person improving due to the acquisition of more knowledge and skills.

In addition, the theory is criticised in the sense that the acquisition of human capital is not limited to formal education as advanced by Crocker (2006).

Hence, Davidson and Honig (2003) state that human capital increases through both formal and informal education or training, and that a person's years of education act as a measure of human capital. Essentially, Davidson and Honig argue that human capital includes the experience and practical learning acquired on the job, as well as non-traditional technical training that enhances skills development that may be acquired informally. Therefore, individuals can amass relevant human capital without necessarily going to school. However, the human capital obtained formally, and recognised by certification, enables individuals to prove their possession of relevant knowledge and skills for jobs. In addition, is the productivity of workers who acquire their human capital formally the same as those who acquire it informally? Similarly, the extent of an individual's productivity who has more years of education may be surpassed by someone with less education. The reason is that productivity may also be influenced by factors other than the duration of education.

Given these criticisms, in the Malawian context the theory also falls short since the educational system does much more than just produce the human capital necessary to ensure productivity. In this case, productivity is not only enhanced through investment in human capital but also through physical capital. On another note, although the possession of knowledge and skills, which is part of human capital, has a bearing on an individual's occupational choice (Fernando, M. & Fernando, S., 2014), one's selection of a profession is also dependent on the influence of socio-economic and demographic factors (Leong, 2014). However, not all individuals are influenced by socio-economic and demographic factors in terms of their choice of profession. Similarly, in the context of this research study, not all pre-service teachers have been influenced by such factors when enrolling for teacher training. Furthermore, such factors might also not influence all pre-service teachers to stay in their training.

3.3. Data Collection Methods

Given the rationale and challenges of this study's concurrent mixed methods approach described previously, this section discusses the data collection methods used. Questionnaires and in-depth interviews were designed purposely to obtain adequate and relevant data. In addition, these tools were intended to establish the useful human capital that pre-service teachers possess. Since collecting credible primary data in any research study is important (Ado, 2013), in this study questionnaires collected quantitative data from pre-service teachers while interviews obtained qualitative data from teacher trainers, mentors and teaching practice coordinators. These tools, as detailed below, obtained adequate and relevant answers to the research questions. The two tools were related in the sense that they contained some similar questions that complemented each other to obtain adequate and clear responses.

3.4. Development of data collection instruments

According to Taylor (2017) and Creswell (2007), when designing research instruments, it is paramount to ensure that they focus on the aims of the research project, how the data will be used and how long the interview or survey will take to complete. In addition, Radhakrishna (2007) argues that systematic development of data collection tools is important to reduce measurement errors and that a careful attention to detail and understanding of the process of research tool development is of immense value. In this study, the data collection instruments were developed regarding research purpose and main research question. Several steps were taken into consideration as follows:

Step 1 Background

In this initial step, the research purpose and research questions of the study were examined. There was also a consideration of the participants, their background, especially their educational level, access, and the process used to

select them. A thorough understanding of the research problem through literature review was also considered.

Step 2 Drafting question items

This step involved generating statements / questions for the instruments. There was a determination of what the instruments should measure, i.e. knowledge, attitudes, perceptions, opinions, behaviour change, etc. In addition, major variables (independent and dependent) were identified and defined. Hence, this step focused on the selection of appropriate scales of measurement, questionnaire layout, format, question ordering, and proposed data analysis.

Step 3 Pre-Test / pilot

The instruments were pre-tested on some pre-service teachers and teacher trainers that were chosen randomly. Pre-testing determines if there is sufficient variation in the responses, the language and concepts used are clearly understood, the response categories are appropriate, participants can answer the questions easily, the format is easy to follow, the flow of information is logical; and the response to the instrument can be completed in a reasonable amount of time.

Step 4 Establishing validity and reliability

In this step, the validity of the instruments was determined. Whilst validity is discussed in greater detail in section 3.5, Barry et al. (2014) defines it as the extent to which a data collection instrument measures what it is intended to measure. This step involved determining whether the instruments were appropriate for the sample population and whether it was comprehensive enough to collect all the information needed to address the purpose and goals of the study.

Additionally, this step involved determining the reliability of the instruments. Golafshani (2003) and Barry et al. (2014), explain that reliability of a data collection instrument can be measured by the degree to which it produces

stable and consistent results. Therefore, reliability indicates the accuracy or precision of the measuring instrument. The data collected from the pilot test was analysed using SPSS (Statistical Package for Social Sciences) to obtain a reliability coefficient (alpha) and compare it against a minimum acceptable value of 0.70.

Step 5 Revising the instrument

Following the pre-testing, the instruments were reviewed to remove ambiguity. Questions that were misunderstood or confused respondents were revised for clarity. The final versions of the data collection instruments were used for the study.

3.4.1. Questionnaire

Before embarking on the actual data collection exercise, an initial draft questionnaire was developed to reflect the secondary questions of this study. The questions in the questionnaire were drawn from the extensive review of the literature alongside my own knowledge of the context and issues associated with Malawian pre-service teacher education. The questionnaire was piloted amongst some pre-service teachers from nearby teaching practice schools to obtain quantitative data. The pilot was done to test whether the questions were understandable to the participants. The questionnaire was then revised to make it more concise and understandable to research participants. The final version of the questionnaire was distributed to head teachers of teaching practice schools and college principals for distribution to sampled participants. The full details of the sampling procedure are highlighted in the following sections. The questionnaire contained closed and open-ended questions to collect both quantitative and qualitative primary data from research participants. The questions, as shown in appendix 1, included demographics of participants, reasons for joining the teaching profession, factors that encourage them to remain in teacher training, usefulness of mentoring practices regarding their stay in teaching, and the relationship of pre-determined recruitment factors to their

decision to stay in teacher training. The questionnaire enabled the research participants to provide the desired information within a reasonable time. As postulated by Blaxter (2006), the questionnaire also enabled respondents to have adequate time to provide more – and more appropriate – responses. However, Blaxter (2006), argues that a questionnaire is not always completed within a short time as some participants consider it to be time-consuming to complete. In this study, few participants thought the questionnaire was time-consuming.

Whilst the open-ended questions enabled some participants to write down more information, it did require more time to complete. Hence, in this context, participants could be flexible in responding to the questionnaire as advocated by Evans and Rose (2007). In this regard, adequate writing space in the questionnaire also enabled participants to write down many responses. Furthermore, Smyth et al. (2009) contend that if space for responses in a questionnaire is inadequate, participants do not write more responses. Additionally, they observe that increasing the size of the answer box for open-ended questions increases the quantity and quality of responses.

Apart from the open-ended questions, the questionnaire also required the participants to select responses on a Likert-type scale. Li (2013) states that a Likert-type scale is a common standard psychometric measure of survey replies. In this study, such scales had four or five scores. The negative scores were mostly on the left side of the scale and the positive scores on the right. In addition, the Likert-type scales had the advantage of enabling some participants to indicate quick responses to the questionnaire as advocated by Hartley (2014), though some participants took a long time to provide responses. The questionnaire also had other advantages such as allowing an efficient use of time, ensuring respondents' anonymity and the use of standardised questions (Rhind, Davis, & Jowett, 2014). However, there were some participants who did not hand in their completed questionnaires in time. Also, even though the

questionnaires had standardised questions, some participants appear not to have understood the questions because they provided irrelevant responses.

Despite the advantages of using the questionnaire in this study, this tool had some disadvantages. For instance, it took a long time to construct good and clear questions to enable participants to express well their attitudes using the Likert-type scales. However, the construction of questions requires substantial and careful thought to avoid misleading the respondents. On this note, it is necessary to take more time to develop clear and effective questions (Patten, 2016). Similarly, Gillham (2008) points out that drafting a questionnaire can sometimes be a challenge, especially when ensuring that participants do not misunderstand the questions posed. In this regard, Haeger et al. (2012) state that researchers need to focus on the wording of survey questions. As reported earlier on, this study's questionnaire was reviewed by an experienced researcher to ensure clarity to enable participants' understanding of the questions. Furthermore, consultation with a research expert in the early stages of the drafting of the questions enabled the sharing of experiences regarding how to develop a suitable questionnaire.

Also, while questionnaire development requires more time, in this study some participants' indications on the scale did not reflect their true and corresponding attitudes regarding specific questionnaire items. Though this situation was observed both during the pilot as well as the actual data collection phase, it is somewhat difficult to control participants' responses to a questionnaire. Hence, the Likert-type scales failed to measure the true attitudes of some participants. For this reason, Hartley (2014) argues that sometimes results derived from Likert-type scales are not realistic because some respondents indicate a false impression of their views on the scale. However, most respondents indicated their true feelings and attitudes and, as such, there were only isolated cases of respondents who provided unrealistic information, but this scenario was compensated in the interviews.

Whilst some respondents provided unrealistic information, Ruta et al. (2012) argue that questionnaires suffer from poor response rates. However, in this study, the response rate was good because all the participants completed their questionnaires. Ruta et al. (2012) and Rhind et al. (2014) also agree that the number of questions and the method of administering them determine the speed of reply. Therefore, a lengthy questionnaire risks experiencing a decline in response rate while a shorter survey achieves a higher response rate. In this study, the response rate was good because the study was short and contained an appropriate number of questions as shown in Appendix 1.

3.4.2. In-depth interviews

Besides collecting data through questionnaires, this study also collected data through face-to-face individual interviews with some participants. Of the twelve interviewed participants, one was female while the rest were male, hence, posing some research limitations as discussed in latter sections of this chapter. The interviews conducted with Teaching Practice Coordinators, Teacher Trainers and Mentors, provided qualitative data. The interviews were necessary in this context because they generated data that complemented the questionnaire data. Furthermore, the interview questions were important because they led to answers to the secondary research questions. In addition, the interviews were relevant to the research questions and the study's context because of their ability to collect first-hand information from the respondents.

Apart from the collection of primary information, the interview technique sought immediate clarification of participants' responses. In this study, interviewing the research participants enabled them to express themselves well in their responses. In this regard, Opdenakker (2006) indicates that interviews occur most commonly in qualitative research, while Doody and Noonan (2013) argue that interviews are useful and insightful in terms of soliciting participants' experiences. However, other data collection methods also detail participants' lived experiences. Moreover, and according to Seidman (2012), at the root of in-

depth interviewing is the researcher's interest in understanding the lived experiences of other people and the meaning they derive from those experiences. For this reason, the interviews were relevant to the questions and the study's context.

Regarding the relevance of the interviews in this study, they were formulated in structured and semi-structured formats to probe for participants' feelings, perceptions, experiences and opinions regarding pre-service teachers' retention. The interview included questions on the reasons for joining the teaching profession, factors that influence the participants to stay in teacher training, reasons that influence teachers to leave teaching, obstacles to retention efforts, influence of mentoring and recruitment on their decision to remain in teacher training and the relationship of pre-determined factors to pre-service teachers' decision to stay in teacher training. Overall, all these questions sought to answer the secondary questions of this study as a complement of the questionnaire. In addition, these questions were drawn to reflect the information gap noted in the literature review on pre-service teacher retention in Malawi.

The semi-structured interview questions sought answers to the secondary research questions that culminated in answering the primary research question. The face-to-face interview supplemented the questionnaire in relation to soliciting participants' responses, particularly concerning various aspects of pre-service teachers' retention. Specifically, the questionnaire required participants to rate predetermined reasons already provided on a Likert-type scale, while the interview only emphasised the need for participants to provide their own reasons for deciding to become teachers. Both tools were necessary because the responses complemented each other.

Additionally, the interview technique had some challenges. According to Opdenakker (2006), this technique results in some cost implications. For instance, in this study, some travel expenses were incurred to meet with participants in their teaching practice schools located in distant schools, although some were based in nearby schools. Apart from cost implications, and as

corroborated by Opdenakker (2006) and Silverman (2010), the process of recording, transcribing and confirming interview responses took a long time, so as to ensure thoroughness in processing while providing clarity. However, the time taken did not affect the overall research process.

Another challenge was that I could not access ODL pre-service teachers easily since they were placed in schools located in very remote areas. As a result, they were heavily underrepresented in the sample of participants.

3.5. Reliability of data collection instruments

Having discussed the data collection methods, this section examines the reliability of the data collection instruments, the data itself and the subsequent research results. According to Golafshani (2003) and Barry et al. (2014), the reliability of a data collection instrument can be measured by the degree to which it produces stable and consistent results. Similarly, Jopppe (2000, as cited in Golafshani, 2003), defines reliability as the extent to which research results are consistent over time. Furthermore, Golafshani (2003) states that the concept of research reliability implies that when a research study is repeated, the results or observations are the same.

With this understanding of research reliability, in this study the questionnaire and interview guide were piloted on some participants in the research context, prior to the actual research process. The piloting was necessary to test whether the tools were able to gather appropriate responses consistently. After that, both data collection instruments were reviewed and refined to ensure clarity. The review involved reframing the question statements to avoid ambiguity.

Additionally, the questionnaire was subjected to a Cronbach reliability test using the Statistical Package for Social Sciences (SPSS) software to ensure its reliability for data collection purposes. The test yielded a Cronbach's alpha reliability coefficient of 0.8 based on the replies from the trial testing. This result

implied that the questionnaire was reliable for data collection purposes at any time and in different contexts other than the present context. Both tools were used again during the actual data collection period. The tools obtained similar responses during the actual research data collection phase, thereby ensuring reliability.

Apart from the trial testing, review and refinement of the tools, reliability was also ensured by triangulating the participants' responses. According to Hussein (2015), triangulation is a research process whereby results from one method are validated against results from another research method. In this context, the triangulation process was essential since similar questions were asked in both interviews and the questionnaire. Hence, the responses from both the questionnaire and the interviews were compared to check consistency in terms of convergence, divergence or contradiction of findings. Additionally, the triangulation resulted into merging of data from both interviews and questions in order to report the findings with regard to the secondary questions. Hence, the triangulation process ensured the tools' reliability in relation to the data collection process.

While this study adopted the triangulation process for reliability purposes, the element of research error could be an issue for discussion. According to Gray (2013), a total survey error refers to the accumulation of all errors arising from the design, collection, processing and analysis of survey data. Given this definition, however, a research error could also occur during the results' reporting stage whereby the research results could be reported inconsistently in terms of the analysed data. Regarding the errors described by Gray, these include the variance that arises from sampling errors, and bias which occurs when respondents consistently indicate higher or lower values that do not reflect the true situation in the population. In this study, and regarding avoiding variance errors, the sampling frame as described in subsequent sections was carefully designed by incorporating different categories of research participants i.e. first-year, second-year, male, female, Conventional, and Open and Distance Learners (ODL). Even the percentage of representative participants was carefully

determined. However, the percentage of ODL participants was lower than the conventional group due to accessibility challenges since they are in very hard-to-reach schools. Moreover, regarding avoiding bias, all the questionnaires were checked for completion. Similarly, a follow-up was made to reach out to those who delayed submitting their completed questionnaires.

3.6. Validity

Having discussed the reliability aspect, this section discusses the validity component of this study where a study's validity refers to the extent to which a data collection instrument measures what it is intended to measure. Additionally, Barry et al. (2014) state that content validity is concerned with the accuracy and trustworthiness of the results generated by a data measuring instrument. Conducting content validity for the data collection instruments of this study was relevant because the instruments were meant to generate information regarding pre-service teachers' behaviour, teacher attrition and retention. Therefore, the instruments were checked to determine whether they allowed the participants to provide the desired information according to the research questions. Hence, in this study, a research expert reviewed the participants' responses to both the questionnaire and the interview guide to ensure the content was consistent with what the questions asked. As pointed out by Barry et al. (2014), based on the quality of responses, the pilot study facilitated revisions of the instrument regarding content coverage and the format and clarity of instructions to reduce unintended errors and confusion. In addition, any ambiguous questions were reworded to ensure clarity and consistency. However, despite the efforts made to ensure content validity in this study, some participants provided responses contrary to what was asked for.

To determine content validity, this study also undertook construct validity of the data collection instruments. According to Brown (2000), construct validity is the degree to which a test measures what it claims to measure. Hence, in this study, construct validity was measured in terms of correlational coefficients of

some of the variables in the data collection instruments. However, there was no accumulation of various evidence measurements, such as factor and content analysis, which comprehensively satisfy construct validity as propounded by Brown (2003) as this study's analysis was meant to engage with basic statistical methods only.

Regarding the researcher's role in view of subjectivity and data trustworthiness, in this study, the researcher never influenced participants to participate in the study. All participants had the freedom to provide their information at will and independently. The responses provided were not modified in any way to ensure originality and trustworthiness of results.

3.7. Sampling of participants

Having discussed the validity aspect of this study's data collection instruments, this section examines the sampling design. On this issue, Bornstein, Jager and Putnick (2013) contend that the sampling of research participants is an essential process in every study. In this study, non-random (convenient) and stratified sampling (Kelley et al., 2003) were applied appropriately. Figure 3 shows the sampling frame for this study.

Participants' sampling frame

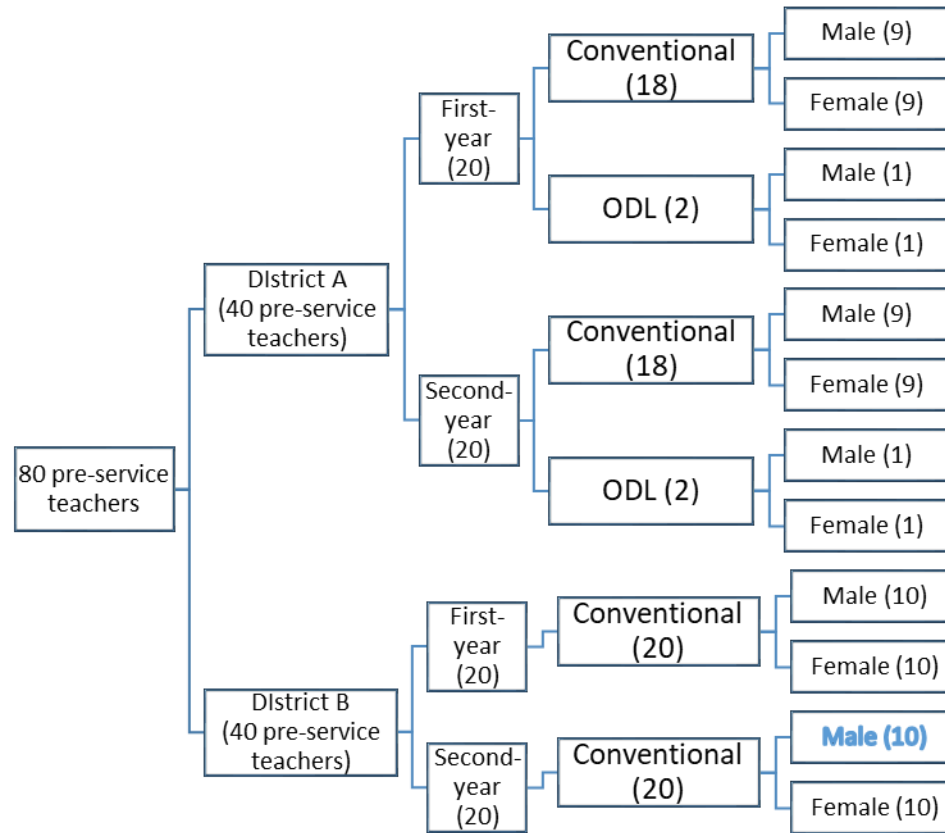


Figure 3. Sampling frame of participants

A list of education districts was requested from the Malawi Ministry of Education Headquarters. From the list provided, two districts in the central region of Malawi were non-randomly sampled based on each having a teacher training college (with first-year students on campus) and pre-service teachers on teaching practice (second-year) in primary schools. The two districts were also sampled based on being located at a convenient distance from the researcher's base to ease access. In each district, stratified sampling was applied for pre-service teachers' level of studies i.e. first-year and second-year pre-service teachers with each stratum having a sample of 20 participants. Hence, each district had 40 non-randomly selected participants thereby totalling to 80 participants for both districts.

In the first district, another stratified sampling was applied to sample participants from both the Conventional and Open and Distance Learning (ODL) modes. Therefore, for each of first-year and second-year strata, 18 participants studying under conventional mode and 2 participants studying under ODL mode were non-randomly sampled. In addition, to achieve a gender balance, in the conventional strata, further stratification was done, where 9 male and 9 female participants were non-randomly sampled. In the ODL strata, 1 male and 1 female participant were non-randomly sampled. The number of sampled ODL participants was very low because most of them were placed in very distant and inaccessible locations.

In the second district, 10 male and 10 female participants were non-randomly sampled from conventional strata of the first-year participants. Similarly, 10 male and 10 female participants were also non-randomly sampled from the conventional strata of the second-year participants. In which case, no participant under the ODL mode was sampled. Regarding the interviews, four teacher trainers, four teaching practice coordinators and four mentors were non-randomly sampled for participation, on the basis that they work closely with the pre-service teachers. In this part of the sample, out of the twelve participants, only one was female. The reason was that very few female lecturers held the positions of teacher trainers, teaching practice coordinators and mentors.

Given the above sampling techniques, in stratified sampling, the population is divided into non-overlapping groups called strata from which samples are taken. In addition, Ross, Wright and Anderson (2013) define stratification as the process whereby a population is divided into sub-populations or strata. The stratified sampling ensured the representativeness of the population sampled and the reduction of sampling error. The sampling of both male and female pre-service teachers facilitated a gender representation of the responses received.

In addition, as shown in figure 3, the non-random sampling was based on the convenience of accessing the research participants since most of them

stayed in very remote areas where mobility was a problem. As indicated by Kelley, Clark, Brown, and Sitzia (2003), convenience sampling enables an easy choice of data sources. Additionally, the technique allows simplicity in terms of sampling, ease of operation, convenient access to research participants and, most importantly, cost effectiveness (Feldmann, 2014).

However, Shao and Zhou (2007, as cited in Feldman, 2014) argue that convenience sampling has some limitations, namely that the technique increases the chances of sampling and selection bias. This limitation was inevitable in this study. For instance, Smith and Noble (2014) indicate that bias occurs in most research studies, in different research designs, at various research stages and it is hard to eliminate. According to Smith and Noble (2014), bias is also caused by inclination or prejudice against one person or a group, hence it becomes unfair. Similarly, Sica (2006) views bias in a study as a form of systematic error that can affect scientific investigations and distort the measurement process. However, though some bias is inevitable, it is paramount to minimise it to ensure the research findings' validity.

Having discussed the sampling procedures, the number of sampled participants is presented in Table 1.

Table 1

Research sample population matrix

Participant	Population	Data collection method	
		Interview	Questionnaire
Teaching Practice Coordinators	4	X	
Teacher Trainers	4	X	
Teacher mentors	4	X	
Pre-service teachers	80		X
Total	92		

The sample population accounted for 2% of the total population of pre-service teachers in Malawi. The mentors accounted for 1% of total mentor population while 1.6% of all teacher trainers were sampled. In sum, 67% of all teaching practice coordinators in teaching training colleges were sampled.

3.8. Recruitment of research participants

A letter sent to the heads of the sampled teacher training colleges and teaching practice schools informed all prospective participants of this study and its intentions. Another letter from the Ministry of Education, Science and Technology in Malawi authorised the conduct of this study in education institutions. The heads displayed the letter on notice boards to gain the attention of prospective research participants. Regarding the teacher training colleges, in Malawi, six public primary teacher training colleges enrol both males and females. Table 2 outlines the population of the pre-service teachers.

Table 2

Primary pre-service teacher population in Malawi

PRIMARY PRE-SERVICE TEACHER POPULATION IN MALAWI										
COLLEGE	Conventional group					Open and Distance Learning (ODL) group				
	Male	% of total Males	Female	% of total Females	Total	Male	% of total Males	Female	% of total Females	Total
KARONGA	190	14	197	14	387	153	15	134	14	287
KASUNGU	263	19	245	17	508	164	16	122	13	286
LILONGWE	308	22	198	14	506	327	32	116	12	443
ST JOSEPHS	0	0	444	32	444	0	0	284	29	284
BLANTYRE	279	20	174	12	453	187	18	155	16	342
MACHINGA	351	25	151	11	502	207	20	157	16	364
TOTAL	1,391		1,409		2800	1,038		968		2006

Source: EMIS (2014)

3.9. Ethical considerations

An ethical review is a critical element in the process of any research study (Isman, Aksal, & Gazi, 2009). In this study, the University of Liverpool's ethical

regulations were applied at all stages. Education authorities granted permission to conduct this research study while the request for permission was to collect research data from pre-service teachers, teacher trainers, mentors and teaching practice coordinators in Malawi.

All the sampled participants were briefed about the research study. They read through a Research Participant Information Sheet. After five days, they expressed their desire to participate by signing a consent form. Given the principles of respect for persons taking part in any research activity (Kraus, Guth, Richardson, Kane, & Macro, 2012), their rights and anonymity requirements were ensured. Apart from the rights and anonymity requirements, participation in this study did not include those people with a close professional relationship with this researcher, including some college principals and school head teachers. The reason for the exclusion was to collect unbiased responses from the participants. In addition, in this study, conducting an interview in a secure place such as in a participant's office or house ensured the highest level of confidentiality. No one accessed the names of the participants and both interview and questionnaire responses were confidential.

Despite all these ethical assurances, this study had some potential risks, including the participants' disclosure of their demographic and personal information including age and marital status. However, addressing the potential risks involved providing utmost confidentiality of participants' personal data. Also, participants completed questionnaires and attended interviews at their convenience to avoid affecting their teaching time. Furthermore, concealing their identities guaranteed participant confidentiality. The participants were assured that the study was purely academic and their responses well secured. Similarly, their participation would not in any way negatively affect their career. In addition, after the data collection process, all contact information for all the participants such as physical and email addresses, telephone numbers, fax numbers and dates were deleted to de-identify them. Moreover, locked metal file cabinets stored all the collected research data, including electronic survey records, interview audio tapes and transcripts.

3.10. Data Analysis

Given the discussion of the data collection design for this study, this section examines the data analysis process, the latter involving examining and organising the collected data. On this topic, Blaxter, Hughes and Tight (2006) contend that investigatory studies generate much information that is scattered, unorganised and disjointed and, as such, analysing the information involves moving from chaos to order. In this mixed methods study, both quantitative and qualitative data analyses were conducted on the data obtained from the questionnaires and interviews respectively. The following sub-sections provide a detailed account of both types of data analysis.

3.10.1. Quantitative Analysis

A questionnaire yielded some numerical data because of participants' ratings based on a Likert-type scale as indicated in Appendix 1. In the context of this study, a Likert-type scale represented various scores for participants' attitudes and feelings. Also, participants' demographic information such as age, gender and year of study resulted in the generation of numerical data.

Given these sources of numerical data, the quantitative data analysis phase involved the use of SPSS computer software (version 20). As stated by Field (2013), using SPSS software simplified the data entry and analysis processes. Additionally, coding of participants' responses from the Likert-type scales also streamlined the process. For instance, codes 1 and 2 in the SPSS computer software represented male and female options respectively. Similarly, codes 1 and 2 represented the choices of either 'married' or 'not married' respectively. The marital status was collected as part of demographics only but was not intended for analysis purposes. Furthermore, codes 1, 2, 3 and 4 represented the responses such as first-year ODL, second-year ODL, first-year Conventional and second-year Conventional respectively. Each option had a distinct code to distinguish responses from one another. In this regard, Field (2013) argues that assigning the same numerical code for different options

results in confusion and erroneous data interpretation. However, sometimes even in situations where different numerical codes are assigned to different options, some confusion may arise, especially, if the data entry is inaccurate.

In this study, data analysis and presentation were in the form of descriptive statistics such as frequency distribution, means, percentages, bar graphs, correlations and chi-square tests. On the issue of analysing statistics, Hirsch, Seubert and Sohn (2015) corroborate the forms of data analysis used in this study by advocating for visual representation of data to facilitate decision making. Thereby, the rationale for performing the given statistical analyses in this study was as follows:

Frequencies are descriptive statistics that show the number of times a variable occurs in a population's characteristics. In this study, they were used because they provide complete data at a glance. They also show whether observations are either high or low or concentrated in one area of a scale or another. They were important in this study because they helped analyse the first question's results which concerned the pre-service teachers' demographic characteristics.

From the frequencies, **graphs** were drawn to show a visual representation of the frequencies with which the various variables occurred. Graphs were relevant in this study because they enhanced understanding of the individual variables based on which variables were high and which were low. Also, graphs enhanced the relationships between the research variables. However, in this study, drawing graphs was time consuming.

Besides graphs, the **mean**, as a measure of central tendency was also used to analyse the data. A mean provides an informative description of the population's characteristics by presenting the average member of the population of interest. In this study, calculating a mean was important because this descriptive statistic showed the average measurement of the research participants' characteristics such as age. However, this statistical measure is

susceptible to distortion because of extreme scores, but it is very important for data analysis purposes.

Apart from using the mean, a **chi-square test**, which determines the likelihood of relationships between research variables, was also used. As propounded by Muthen (2011), in this study, a chi-square test checked for significant relationships between variables in data sets. This statistic was specifically used in checking any significant relationships between age, gender mentoring and recruitment to pre-service teachers' retention. However, the use of a chi-square test necessitates that the expected value of the number of sample observations in each level of a variable should at least be 5. In this regard, Muthen (2011) indicates that a chi-square is statistically significant if there is a likely relationship of variables (with significance level of 95% and p-value of <0.05) and becomes statistically insignificant if there is no relationship between the variables (p-value of >0.05). Hence, the chi-square test was important in this study because it tested the significance of the relationship between a couple of variables.

Besides using the chi-square test, **correlation** coefficients were applied in this study because they indicate the strength of the relationships between the variables. The most common correlation coefficient is known as Pearson's R. The correlation coefficient was applied to test the strength of relationship between pre-service teachers' entry aptitude test scores and the scores achieved at the end of the training. When the coefficient ranges between 0 and -1, it denotes a negative correlation meaning that as one variable increases, a related variable decreases and, on the other hand, as one variable decreases, a related variable increase. Furthermore, when the coefficient ranges between 0 and 1, it denotes a positive correlation meaning that as one variable increases, a related variable also increases and where a variable decrease, a related variable will decrease. Hence, in this study, the correlation coefficient was important because it helped to answer the research questions, particularly regarding the extent of the relationship between pre-service teachers' age and their retention. However, in a research project, the correlation coefficient does not indicate whether one

variable causes another variable. In addition, the correlation coefficient also, does not establish the reasons why a relationship between variables did or did not exist.

3.10.2. Qualitative analysis

Having discussed the quantitative analysis processes applied in this study, this section discusses qualitative analysis. Since this study adopted a concurrent mixed method approach, as described earlier on, it was necessary to do qualitative analysis of the transcribed data obtained from the interviews to complement the quantitative analysis described in the previous section. This analysis facilitated the merging of data. However, the quantitative data obtained from the interviews was also analysed quantitatively. A qualitative research is defined by Trochim (2006) as an investigation that allows researchers to gain a greater understanding of an issue within a contextual setting. However, Shuttleworth (2008) views this methodology as complex. This method also generates information and data used to formulate and test a hypothesis. According to Shuttleworth, there are several advantages to qualitative research, including: an examination of information; use of personal information; no static variables; and a review of questions that would be difficult to quantify. However, qualitative research is unique and lacks the ability to be reviewed and cannot be mathematically analysed.

Given this background information, in this study the qualitative analysis aligned well with the research questions presented earlier in this chapter. The reason is that some of the questions in both the questionnaire and the interview required participants to produce statements that necessitated qualitative analysis. The two tools were related in the sense that they contained some similar questions that complemented each other to obtain adequate and clear qualitative answers from participants. At the same time, doing the qualitative analysis corresponded with the chosen pragmatic paradigm that underpinned this

research study. The reason is that the paradigm embraces both quantitative and qualitative approaches.

Furthermore, Silverman (2013) suggests qualitative data analysis ensured convenience in terms of analysing the personal information obtained from participants during the interviews, as was the case in this research study. On another note, Silverman also recommends qualitative research as a methodology for studying people's subjective experiences, their actual views and perceptions which are easily collected using the interview method. However, the element of subjectivity itself depicts an approach limitation while even quantitative data analysis can be used to study participants' views about various phenomena.

Basically, under this component, this study applied thematic data analysis. The research participants' verbal responses during the interviews were audio-recorded and later transcribed. Hence, the transcribed responses necessitated thematic analysis. In this context, Braun, Clarke and Terry (2014) view thematic analysis as a focus on identifiable themes and patterns emerging from participants' ideas in an interview. Patton (2002) also states that the most common strategy for analysing qualitative data is a constant comparison. Therefore, a thematic analysis was appropriate in this study because it determined the relationships between concepts as advocated by Alhojailan (2012). Furthermore, it allowed linking the various concepts and opinions of interview participants with data gathered in different situations and at different times. Given this information, the following illustration is a six-phase process of thematic analysis as advocated by Braun and Clarke (2006).

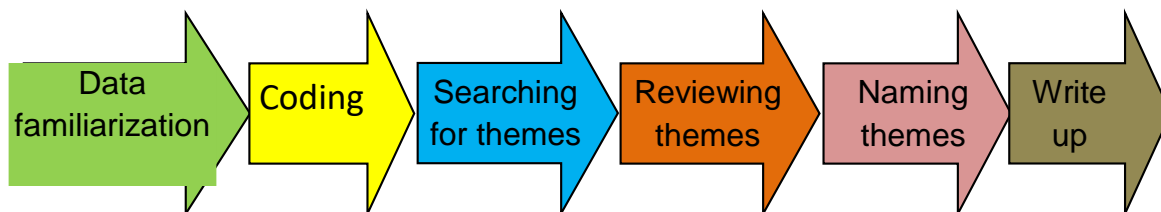


Figure 4. Thematic analysis

In this study, the familiarisation phase involved reading and re-reading the transcribed data to understand and become knowledgeable about the content. The coding phase involved generating labels for the main ideas. The reason was to identify data features that might be relevant to answering the research questions. As indicated by Smith and Firth (2011), the phase for searching themes involved collating all the coded ideas to identify broader significant patterns. A theme captured important aspects of the data about the research questions. Themes emerged as major topics of the conversations hence, as argued by Welsh (2002), they need to be well understood, particularly in relation to how they knit together to form a whole. Reviewing the themes involved checking the candidate themes against the dataset to determine whether they had a convincing story or not. Studying the topics determined whether the data answered the research questions or not. As pointed out by Fereday and Muir-Cochrane (2008), in this phase splitting and combining (clustering) the themes resulted in their improvement. Meanwhile, defining and naming themes meant developing a detailed analysis of each theme, working out the scope and focus of each specific theme and determining the 'story' of each one. Most importantly, this phase included deciding on a descriptive name for each theme. Writing up meant weaving together the analytic narrative and data extracts to report the research findings.

Despite the merits of the thematic analysis process, in this research context this process had challenges, including the need for a considerable amount of time to work on large volumes of qualitative data in the form of interview transcripts (Chenail, 2012). The other challenge was that the data analysis process involved working on transcriptions from the few participants that were interviewed. Hence, the representation of views from the entire population was minimal. However, the thematic analysis process was allocated more time and that helped to generate meaningful results.

3.11. Merging qualitative and quantitative data

As a concurrent mixed method research, it was necessary to merge the data from quantitative and qualitative analysis to make an effective interpretation of the findings as illustrated by Creswell and Clark (2007, as cited in Almalki, 2016).

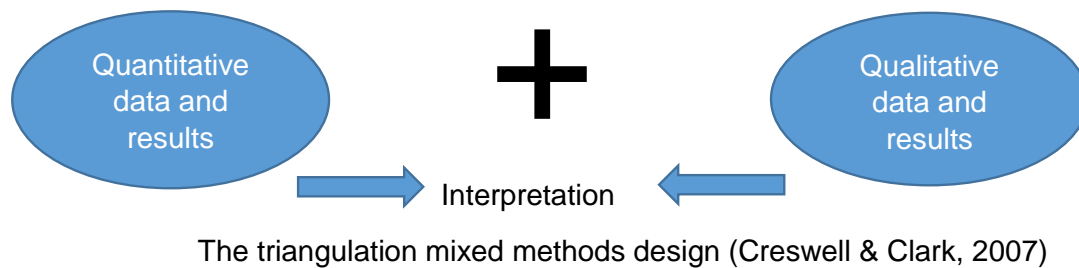


Figure 5. Triangulation in a mixed methods design

To achieve the merging process, a triangulation protocol, as described by O’Cathain, Murphy and Nicholl (2010), was employed. This technique involved displaying findings of each aspect of the study from both the questionnaire and interview, as per the research questions, placed side by side on a single page. This process considered findings that agreed (convergence), those that complemented each other (complementarity) and those that appeared contradictory (discrepancy) regarding various issues for pre-service teacher retention. These features were relevant to this study because they highlighted the practical aspects of retaining pre-service teachers. More importantly, the convergence of findings resulted into deriving practical knowledge for retaining pre-service teachers as provided by the participants that completed the survey and those that were interviewed. Regarding complementarity, the findings obtained from quantitative method were enriched by those from the qualitative method, hence increasing knowledge of retaining pre-service teachers. Contradictory findings implied the difference in opinions provided by the participants regarding the practical solutions for retaining pre-service teachers in Malawi. In view of the research problem, considering the three features resulted

into obtaining findings from the participants that provided reliable, valid and practical answers to the research questions.

3.12. Research limitations

Following the discussion of qualitative data analysis in the preceding section, this section discusses the study's limitations. In this regard, Price and Murnan (2004) state that a potential drawback of a study design is a systematic bias that a researcher could not control, and which might affect the results in one way or another. Hence, in this study, a significant limitation concerned the sampling design. According to Koerber and McMichael (2008), the convenient sampling method is considered as a limitation, since it does not give all the individuals in the entire population equal chances of being selected. In this study, using this method led to recruiting more pre-service teachers undertaking the conventional mode of training, other than those on the ODL mode. Therefore, this imbalance resulted in the research findings being more biased towards those in the conventional mode.

Given this, although the design of this research study would improve by following a simple random sampling technique, the convenient sampling method still served its purpose because the time allocated for data collection was significantly reduced as access to research participants was easy and affordable.

Additionally, only few pre-service teachers studying under the ODL mode participated in this study. The reason is that such participants were practising in very remote schools where accessibility was a problem. In this regard, hard-to-staff schools which are usually found in such localities were under-represented in this study. Although, most participants were drawn from the conventional mode, sampled female participants were fewer than their male counterparts.

3.13. Summary

The purpose of this chapter was to justify the methodological framework, research design, sampling procedures, ethical considerations, data collection, and analytical methods used. The study design considered the Malawian context regarding appropriate methodology, participant location, flexibility and availability, cost implications, ethical requirements, the nature of the research problem, the research questions' practicality, the guiding theoretical framework and research paradigm.

Given these pre-requisites, a pragmatic paradigm supported the use of concurrent mixed methods. The mixed methods approach was compatible with the pragmatic paradigm since it enabled the use of both quantitative and qualitative data collection techniques and evidence analysis. Hence, the concurrent mixed method approach confirmed, corroborated and cross-validated the findings.

Furthermore, the pragmatic paradigm was relevant in this study because it helped to obtain more knowledge from different sources and methods as advocated by Goldkuhl (2012). Additionally, it also helped to find answers to the research questions that sought practical solutions to the problem of retaining pre-service teachers in Malawi.

Following the examination of the use of the pragmatic paradigm and the mixed methods approach, the chapter also analysed the data collection methods used in this study, namely questionnaires and in-depth interviews. Both tools were purposely designed to obtain adequate and relevant data. A questionnaire with closed and open-ended questions was used to collect both quantitative and qualitative primary data. This questionnaire was chosen to allow the research participants provide the required information, although it is time-consuming.

Besides collecting data through questionnaires, this study also gathered data through face-to-face interviews with some participants. The interviews generated data that would complement the data collected from the questionnaires. Furthermore, the interview questions were important because

they generated answers to the chosen secondary questions and were relevant to the context of the study. However, this interview technique had some challenges such as incurring travel expenses to meet participants in distant schools. Also, recording, transcribing and confirming interview responses took a long time.

To ensure reliability, the questionnaire and interview guide were piloted on some participants within the research context and prior to the actual research process. The piloting tested whether the tools were able to generate appropriate responses consistently. They were then reviewed and refined for clarity.

Regarding validity, which is the extent to which a data collection instrument measures what it is intended to measure, the participants' responses for both tools were reviewed, to ensure consistency with what the questions asked.

Alongside discussing reliability and the validity of the research tools, this chapter also examined non-random convenient and stratified sampling applied in the study. The stratified sampling was done to ensure a fair representation of the population and to reduce sampling error. The non-random sampling facilitated convenient access to participants, since most teaching practice schools were in hard-to-reach remote areas.

The chapter also discussed the recruitment of participants. Invitation letters were submitted to teacher training colleges and teaching practice schools, requesting prospective participants for the study. The Ministry of Education, Science and Technology in Malawi authorised the study. In addition, the University of Liverpool's ethical regulations were applied at all stages of the research process.

Having followed all the ethical requirements, the quantitative data analysis phase was done using an SPSS computer software (version 20). The coding of participants' responses from the Likert-type scales also simplified the data entry process. Data analysis and presentation were in the form of descriptive statistics such as frequency distribution, means, percentages, bar graphs, pie charts, correlations and chi-square tests.

Also, some questions in the questionnaire and the interviews, required participants to produce statements that necessitated qualitative analysis. The

qualitative analysis aligned well with the chosen pragmatic paradigm because it embraces both quantitative and qualitative approaches. This study applied thematic data analysis on the research participants' verbal responses that were audio-recorded and later transcribed. The latter was appropriate because it allowed determination of the relationships between concepts as advocated by Alhojailan (2012). However, the thematic analysis had the challenge of requiring more time to work on the interview transcripts.

Since this study employed a concurrent mixed method approach, the data was ultimately merged by triangulating the findings through comparison to check convergence, complementarity and contradictions.

In this study, the most significant limitation concerned the convenience sampling design, since it does not give all individuals in the entire potential participant population equal chances of being selected. The other limitation included having few female participants and few participants studying under the ODL mode.

Chapter 4: Findings

4.1. Introduction

Having discussed the research methodology in the preceding chapter, the findings are outlined here. This study examined the factors that influence pre-service primary teachers in Malawi in terms of completing their training. The study focused on the following secondary questions:

1. To what extent does age and gender affect pre-service primary teachers' intention to complete their training in Malawi?
2. How can recruitment procedures and mentoring practices influence pre-service primary teachers to complete their training?
3. What strategies do primary teacher training institutions follow to promote pre-service teachers' completion of their training?

This chapter discusses the demographic information of the sampled research participants including the pre-service teachers' age, gender, marital status, college level (year), and programme of study. Bartel et al. (2014) argue that demographic data also details research participants' human capital attributes depending on what data has been collected. Therefore, this chapter focuses on the findings of this study regarding the relationship between pre-service teachers' demographic characteristics and their retention in Malawi.

Following the discussion of the participants' demographic data, this chapter also highlights the pre-service teachers' reasons for choosing the profession. Scheffler (2014) points out that such reasons influence one's decision to either complete teacher training or not. In this study, highlighting pre-service teachers' reasons for joining the teaching profession was important as human capital theory asserts that possession of knowledge and skills is paramount for any occupational choice (Silos & Smith, 2015). Therefore, the pre-service

teachers' reasons for becoming teachers form part of their acquired human capital in relation to the teaching profession.

Besides discussing these motivations, this chapter also presents the study's findings regarding the relationship between teacher training admission factors and their influence on pre-service teachers' retention. In addition, the study highlights findings regarding the strategies that influence whether pre-service teachers complete their training and the relationship between several other factors and pre-service teachers' retention. Additional findings include the usefulness of mentoring practices in terms of pre-service teachers' retention.

4.2. Participants' demographic data

Having presented an overview of this chapter, the following two sections provide information on the research participants' demographic data.

4.2.1. Pre-service teachers' demographic data

Only the pre-service teachers were given questionnaires to complete.

Table 3

Number and percentage of sampled pre-service teachers by gender, year and mode

		Gender		
		Female	Male	Total
First-year conventional	Count (n)	19	19	38
	% of total	47.5%	47.5%	47.5%
First-year ODL	Count (n)	1	1	2
	% of total	2.5%	2.5%	2.5%
Second-year Conventional	Count (n)	19	19	38
	% of total	47.5%	47.5%	47.5%
Second-year ODL	Count (n)	1	1	2
	% of total	2.5%	2.5%	2.5%
Total	Count (n)	40	40	80
	% of total	100%	100%	100%

Note: From questionnaire data

Table 3 shows that of all the sampled pre-service teachers who received questionnaires, most of them were studying in the Conventional mode, and only a few studied through the Open and Distance Learning (ODL) option. Since both primary teacher training modes run for two years, some sampled participants were in their first year, while others were in their second year of training. Additionally, almost equal proportions of both female and male pre-service teachers were sampled in each training mode.

Table 4

Pre-service teachers' mean age and standard deviation by sex

	Female	Male
Mean age	21	20
Standard deviation	5.6	7.4

NOTE: From questionnaire data

Given the number of pre-service teachers sampled, the ages of both male and female pre-service teachers varied significantly from their Means as shown in Table 4.

Table 5

Number of participants by gender and age

	Participants' age (years)				Total
	< 20	20 – 25	26 – 30	>30	
Female	12	27	0	1	40
Male	9	26	3	2	40
Total	21	53	3	3	80

Note: From questionnaire data

Furthermore, a Pearson chi-square test ($p = 0.292$, at $df = 3$ and 0.05 alpha level of significance) on the relationship between male and female pre-service teachers' ages, implied that the pre-service teachers' gender was not significantly related to their ages. Overall, the mean age of the pre-service teachers was 22.5 years, while the standard deviation (SD) was 3.27 years. These statistics imply that the pre-service teachers' ages were all around the mean age.

Table 6

Number of pre-service teachers by mean age

Age group	Participants' age (years)					
	Mid-point age	f	fx	$x - \bar{x}$	$(x - \bar{x})^2$	$f(x - \bar{x})^2$
15 – 20	18	21	378	- 4.5	20.3	425.25
21 – 25	23	53	1219	0.5	0.25	13.25
26 – 30	28	3	84	5.5	30.3	90.75
31 – 35	33	3	99	10.5	110	330.75
Total		80				

Note: From questionnaire data

Given the demographic data of the pre-service teachers, all of them completed the questionnaires, therefore achieving a 100% response rate. This

response rate was achieved due to the small number of questions, their clarity and easy accessibility. According to Williams (2014), such a response rate implies greater confidence in the research findings.

4.2.2. Interviewed participants

Table 7

Number of interviewed participants

Category of interviewed participants	Number of participants		
	Male	Female	Total
Mentors	3	1	4
Teaching Practice Coordinators	4	0	4
Teacher Trainers	4	0	4
Total	11	1	12

Qualitative data was obtained from those participants who were interviewed.

4.3. Analysis of data from the questionnaire

Given the proportions of the research participants, this section presents the findings derived from their questionnaire responses. Appendix 1 contains the questionnaire that was administered to participants.

4.3.1. Reasons for choosing a teaching career

In the questionnaire, on a Likert-type scale, the participants were asked to identify the level of importance of various pre-determined reasons that might have influenced them to join the teaching profession.

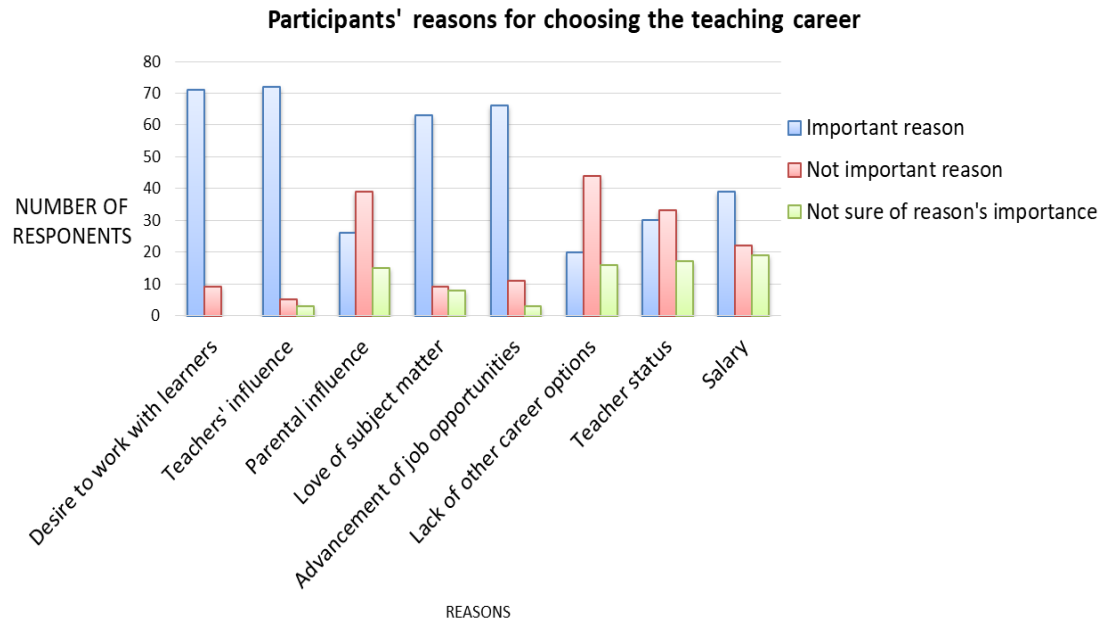


Figure 6. Reasons for pre-service teachers' decision to become teachers

Source: Questionnaire analysis

As shown in figure 6, the findings established various reasons why pre-service teachers choose teacher training. Additionally, the pre-service teachers' reasons for joining the profession determine their individual decision to either complete the training or withdraw.

In this regard, the participants reported four important reasons that encouraged them to enrol for teacher training, including teachers' influence (90%), the desire to teach children (88.3%), opportunities to advance their education (82.5%), and love of the subject matter (78%).

Table 8

Chi-square test p-values on the relationship between gender and pre-service teachers' reasons for choosing the teaching profession

Reason	Chi-square test p-value
Teachers' influence	0.05
Desire to work with learners	0.008
Advancement of career opportunities	0.791
Love of subject matter	0.26

Note: From questionnaire analysis

According to Dahiru (2008), a chi-square test p-value is considered statistically significant if the value is less than 0.05. Therefore, chi-square tests on the variables, as shown in Table 8, indicated a statistically significant association between gender and motivation factors such as teachers' influence and the desire to teach children.

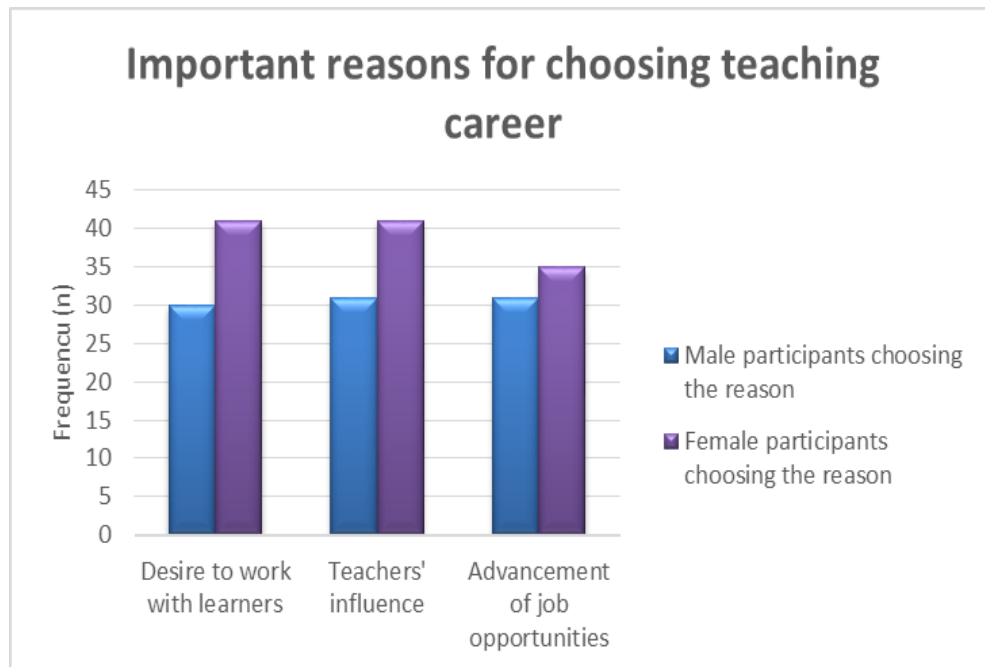


Figure 7. Pre-service teachers' important reasons for choosing the teaching career

Furthermore, both male and female pre-service teachers reported these two reasons as being important for their teacher training enrolment as shown in Figure 7.

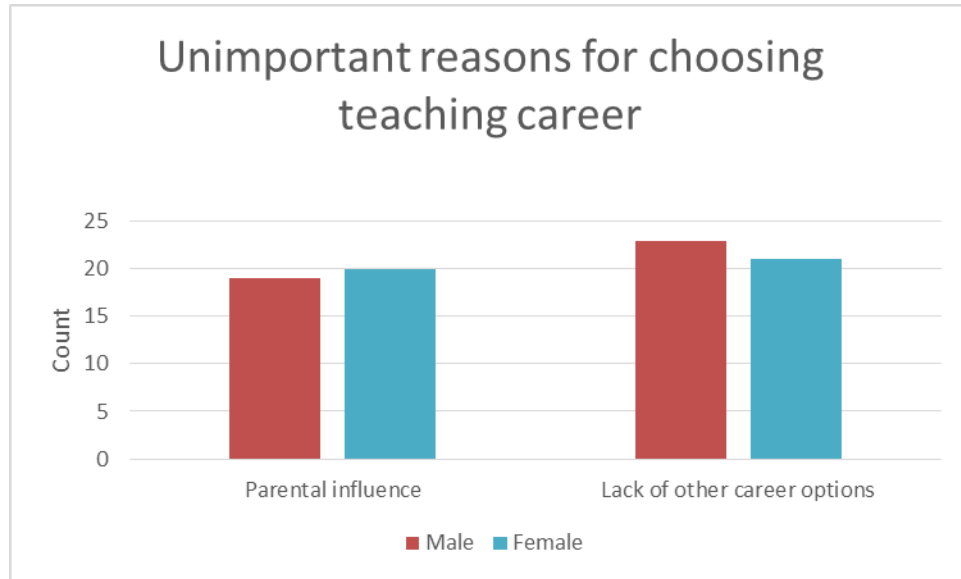


Figure 8. Pre-service teachers' minor reasons for choosing teaching career

However, as shown in Figure 8, the pre-service teachers also reported that their parents (48.8%) and a lack of other career options (55%) were not important influences on their enrolment.

Table 9

Chi-square test p-values on the relationship between gender and pre-service teachers' minor reasons for choosing the teaching profession

Reason	Chi-square test p-value
Parents' influence	0.775
Lack of other career options	0.342

Also, and as indicated in Table 9, there was no statistically significant relationship between gender and parental influence and a lack of other career options in terms of influencing pre-service teachers' enrolment.

4.3.2. Influence of age, gender and interest on retention

Besides the reasons for choosing the teaching profession, this study also analysed the participants' responses on the following question as reflected in appendix 2:

Indicate the extent of relationship between the following factors and pre-service teacher's continued stay in teacher training?

1 = related	2 = not related	3 = not sure
Age.....1	2	3
Gender.....1	2	3
Residence.....1	2	3
Interest in teaching job..... 1	2	3
Marital status.....1	2	3

Table 10

Number of pre-service teachers' expressing their perceptions on the relationship between age and staying in teacher training by gender

		Gender		
		Male	Female	Total
Related	Count (N)	40	30	70
	% within gender	100	75	88
	% of Total	50	38	88
Not related	Count (N)	0	10	10
	% within gender	0	25	25
	% of Total	0	13	13
Total	Count (N)	40	40	80
	% within gender	100	100	100
	% of Total	50	50	100
Mean age		1.2		
Standard deviation		0.82		
Overall chi-square test		p = 0.89		
Gender-wise chi-square test		p = 0.114 (No statistical significance)		
Note: From questionnaire analysis				

In Table 10 the findings indicate that a higher percentage of participants reported that, in their view, the age of pre-service teachers is related to their likelihood to stay in the training, whereas very few participants considered the two variables to be unrelated. In addition, the participants' responses were not dispersed far from the mean. In this regard there was no statistical significance in the relationship between pre-service teachers' age and their likelihood to stay in training. In terms of gender, no statistical significance was apparent in the relationship between age and the pre-service teachers' perceptions about staying in training.

Table 11

Number of pre-service teachers' expressing their perceptions on the relationship between having career interest and staying in teacher training by gender

		Gender		
		Male	Female	Total
Related	Count (N)	40	32	72
	% within gender	100	80	90
	% of Total	50	40	90
Not related	Count (N)	0	8	8
	% within gender	0	20	20
	% of Total	0	10	10
Total	Count (N)	40	40	80
	% within gender	100	100	100
	% of Total	50	50	100
Mean score		1.1		
Standard deviation		0.82		
Chi-square test		p = 0.8		
Gender-wise chi-square test		p = 0.292		

Note: From questionnaire analysis

In terms of the pre-service teachers' interest in the career, Table 11 indicates that a high percentage of participants reported that their interest in a teaching career is related to their likelihood to stay in training. However, only a very low proportion of the participants reported the lack of such relationship.

Given this information, the recruitment of teacher candidates also depended on their place of residence. Hence, at the time of this study, the preference was for rural-based candidates. The reason was that the teacher shortage was most critical in the countryside, hence candidates from such areas would be ideal for training. Also, such candidates would eventually stay there as they could easily cope with the prevailing conditions. However, this idea was just an assumption because the contrary view might also be true, hence in this study the participants' responses regarding the association between rural-based

candidates' recruitment and their stay in training were analysed and these results are indicated in Table 12.

Table 12

Number of pre-service teachers' expressing their perceptions on the relationship between enrolling them based on rural district of origin and staying in teacher training by gender

		Gender		
		Male	Female	Total
Related	Count (N)	28	23	51
	% within gender	74	55	64
	% of Total	35	28	63
Not related	Count (N)	12	17	29
	% within gender	30	43	36
	% of Total	13	24	37
Total	Count (N)	40	40	80
	% within gender	100	100	100
	% of Total	50	50	100
Mean score		1.4		
Standard deviation		0.73		
Chi-square test		p = 0.79		

Note: From questionnaire analysis

In this regard, a high percentage of the participants reported that the practice of selecting pre-service teachers based on their rural district of origin is related to their likelihood to stay in training. However, a lower proportion of them reported that the rural district of origin selection criteria is not related to their perceptions about staying in training.

Apart from the rural district of origin criteria, the recruitment process for teacher training also considers the applicants' pre-requisite qualifications. In Malawi, the pre-requisite qualification for primary teacher training is a Malawi School Certificate of Education (MSCE). This qualification is equivalent to the 'O'

level International General Certificate of Secondary Education (IGCSE). Therefore, participants' perceptions regarding the extent of the relationship between the entry pre-requisite qualification and pre-service teachers' likelihood to stay in teacher training were analysed, as presented in Table 13.

Table 13

Number of pre-service teachers' expressing their perceptions on the relationship between pre-requisite certificates and staying in teacher training by gender

		Gender		Total
		Male	Female	
Related	Count (N)	35	40	75
	% of Total	44	50	94
Not related	Count (N)	5	0	5
	% of Total	6	0	6
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.46	1.75	
Standard deviation		0.502	0.5	
*Chi-square test p - value		0.79	0.258	
*Relationship not statistically significant				

Note: From questionnaire analysis

A very high percentage of the participants reported that the consideration of a pre-requisite qualification for selection purposes is, in their view, related to pre-service teachers' likelihood to stay in training. Also, a higher proportion of female participants than males reported of the existence of a relationship between the two aspects. However, a very low proportion of the participants saw the two aspects as unrelated. Additionally, a slightly higher proportion of males than females reported that the two aspects are not related.

Apart from considering the pre-requisite qualification, the recruitment process for teacher training also considers the applicants' performance in an entrance test. On this note, the questionnaire had the following question:

Furthermore, in view of the same question from the questionnaire that required participants to indicate the extent of relationship of pre-service teachers' performance in an entrance test and their stay in training, exit data was obtained from one college. The data compared the pre-service teachers' entrance and exit test scores as shown below. The exit scores meant that the concerned pre-service teachers completed their training.

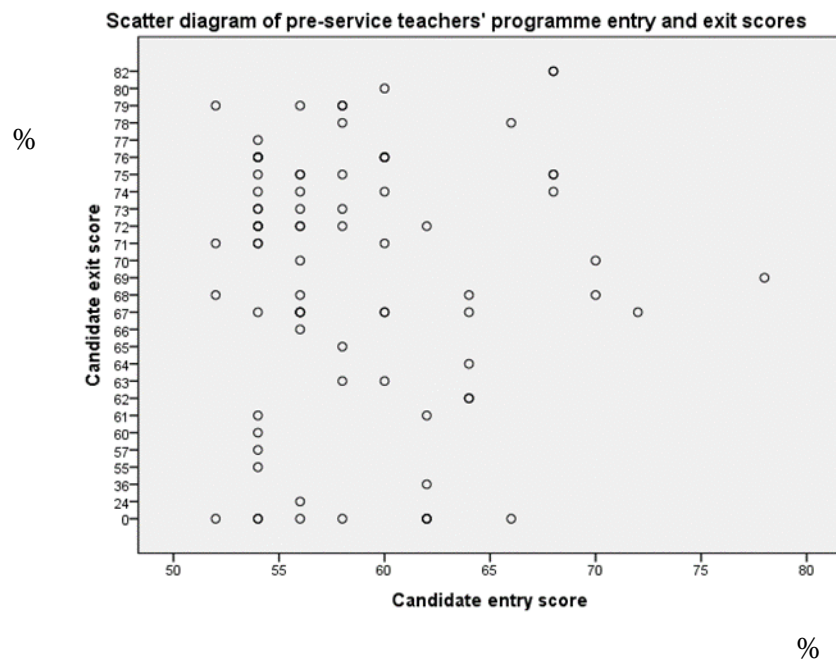


Figure 9. Scatter graph of pre-service teachers' entrance test and programme completion scores by percentage

Source: College assessment report

Therefore, an analysis of the pre-service teachers' entrance and training completion (exit) test scores, indicated a Pearson correlation coefficient of -0.02, $p = 0.870$. These values implied a weak negative correlation between the performance of the pre-service teachers in the entrance test and the scores achieved at the end of their training. It implied that 87% of the values correlated negatively.

Besides analysing the correlation between entrance and exit scores of pre-service teachers, in this study an analysis of the participants' perceptions on

the relationship between the orientation (induction) given to pre-service teachers and their likelihood to stay in training was also conducted. This analysis followed the question on the questionnaire as follows:

Indicate your view of the extent of relationship for the following recruitment factors to your decision to remain in teacher training.

1 = related 2 = not related 3 = not sure

Career orientation of applicant 1 2 3

Therefore, table 15 shows the results of the analysis.

Table 15

Number of pre-service teachers' expressing their perceptions on the relationship between induction and staying in teacher training by gender

		Gender		Total
		Male	Female	
Related	Count (N)	29	38	67
	% within gender	76	90	84
	% of Total	36	48	84
Not related	Count (N)	11	2	13
	% within gender	28	5	16
	% of Total	14	3	16
Total	Count (N)	40	40	80
	% within gender	100	100	100
	% of Total	50	50	100
Mean score		1.2		
Standard deviation		0.853		
*Chi-square test p - value		0.09		
*Relationship not statistically significant				

Note: From questionnaire analysis

Based on the participants' perceptions, the findings indicate that a high percentage of the participants reported that the induction of pre-service teachers is related to their likelihood to stay in training. However, a low proportion reported that induction is not related to their stay in training.

Besides analysing the recruitment factors, an examination of the participants' perceptions regarding the importance of the factors that presumably influence pre-service teachers to stay in their training in Malawi was also undertaken. This analysis was done in view of the following question from the questionnaire:

Indicate the importance of each of the following factors in your decision to remain in primary teacher training?

1=Important	2=Not important	3=Not sure
Availability of resources	1	2 3
Professional support from faculty	1	2 3
Support from college leadership	1	2 3
Clear future professional career	1	2 3
Pre-service teacher recruitment mechanism	1	2 3
Professional teacher organisation	1	2 3
Community support	1	2 3
Peer support	1	2 3
Parental support	1	2 3
Upkeep allowance	1	2 3
Mentoring	1	2 3

In this regard, Table 16 shows the results of the participants' opinions regarding the importance of resource availability.

Table 16

Number of pre-service teachers' expressing their perceptions on the relationship between the importance of resource availability and staying in teacher training by gender

		Gender		Total
		Male	Female	
Important	Count (N)	25	23	48
	% of Total	31	29	60
Not important	Count (N)	9	11	20
	% of Total	11	14	25
Not sure	Count (N)	6	6	12
	% of Total	5	10	15
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.52		
Standard deviation		0.505		
Chi-square test p - value		0.49		
*Relationship not statistically significant				

Note: From questionnaire analysis

In this case, based on participants' perceptions, a higher proportion of pre-service teachers reported that the availability of teaching and learning resources in the teaching practice schools is an important factor influencing their stay in training, while a higher proportion of males than females held this view. However, a low proportion reported that such a factor is not important, though a higher proportion of females than males held this opinion.

Besides the analysis of the importance of resource availability, the participants' responses regarding the significance of faculty support for pre-service teachers' stay in training were also analysed as indicated in Table 17.

Table 17

Number of pre-service teachers' expressing their perceptions on the relationship between importance of faculty support and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	25	30	55
	% of Total	31	38	67
Not important	Count (N)	6	8	14
	% of Total	8	10	18
Not sure	Count (N)	9	2	11
	% of Total	11	3	14
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.45		
Standard deviation		0.503		
Chi-square test p - value		0.5		
*Relationship not statistically significant				

Note: From questionnaire analysis

Based on their perceptions, a higher percentage of the pre-service teachers reported that faculty support is an important factor influencing their stay in training, while a higher proportion of females than males held this view. However, few of them reported that such a factor is unimportant, although a higher proportion of females than males held this opinion.

Apart from the analysis of the importance of faculty support, the participants' responses based on their perceptions regarding the influence of a clear professional career path on pre-service teachers' stay in training were also analysed as indicated in Table 18.

Table 18

Number of pre-service teachers' expressing their perceptions on the relationship between importance of career path and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	39	33	72
	% of Total	49	41	90
Not important	Count (N)	1	2	4
	% of Total	3	2	5
Not sure	Count (N)	0	5	5
	% of Total	0	6	6
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.46		
Standard deviation		0.502		
Chi-square test p - value		0.52		
*Relationship not statistically significant				

Note: From questionnaire data analysis

In this case, based on participants' perceptions, a very high proportion of pre-service teachers reported that a clear professional career path is an important factor influencing their stay in training, while a higher proportion of females than males held this view. However, very few reported that such a factor is unimportant, with a higher proportion of females than males holding this opinion.

Besides the analysis of the importance of a clear professional career path, the participants' perceptions on the importance of community support for pre-service teachers' stay in training were also analysed as indicated in Table 19.

Table 19

Number of pre-service teachers' expressing their perceptions on the relationship between importance of community support and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	18	26	44
	% of Total	23	32	55
Not important	Count (N)	16	11	27
	% of Total	20	13	33
Not sure	Count (N)	6	3	9
	% of Total	8	4	12
Total	% of Total	40	40	80
	% of Total	53	47	100
Mean score		1.49		
Standard deviation		0.497		
Chi-square test p - value		0.02		
*Relationship statistically significant				

Note: From questionnaire data analysis

In this case, based on participants' perceptions, about half of the pre-service teachers reported that community support is an important factor influencing their stay in teacher training, while a higher proportion of males than females held this opinion. However, less than half of them reported that such a factor is unimportant, with a higher proportion of females than males holding this opinion. Furthermore, based on gender there was a statistical significance regarding the importance of community support on pre-service teachers' stay in training.

Apart from the analysis of the importance of community support, the participants' perceptions on the significance of peer support for pre-service teachers' stay in training were also analysed as detailed in Table 20.

Table 20

Number of pre-service teachers' expressing their perceptions on the relationship between importance of peer support and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	21	16	37
	% of Total	26	20	46
Not important	Count (N)	16	18	34
	% of Total	20	22	42
Not sure	Count (N)	3	6	9
	% of Total	4	9	11
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.43		
Standard deviation		0.502		
Chi-square test p - value		0.7		
*Relationship not statistically significant				

Note: From questionnaire data analysis

In this case, based on the participants' perceptions, nearly half of the pre-service teachers reported that peer support is an important factor influencing their stay in teacher training, though a slightly higher proportion of females than males held this view. However, less than half of them reported that such a factor is unimportant, while a slightly higher proportion of males than females held this opinion.

Besides the analysis on the importance of peer support, the participants' responses regarding the importance of parental support on pre-service teachers' completion of training were also analysed as indicated in Table 21.

Table 21

Number of pre-service teachers' expressing their perceptions on the relationship between importance of parental support and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	31	26	57
	% of Total	39	32	71
Not important	Count (N)	8	9	17
	% of Total	10	11	21
Not sure	Count (N)	1	5	6
	% of Total	2	6	8
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.46		
Standard deviation		0.503		
Chi-square test p - value		0.86		
*Relationship not statistically significant				

Note: From questionnaire data analysis

Based on participants' perceptions, while a higher percentage of pre-service teachers reported that parental support is an important factor influencing their stay in teacher training, a higher proportion of females than males held this view. However, fewer participants reported that such a factor is unimportant, with almost an equal proportion of both females and males holding this opinion.

Apart from the analysis of the importance of parental support, the participants' responses on the significance of the upkeep allowances on pre-service teachers' stay in training were also analysed as indicated in Table 22.

Table 22

Number of pre-service teachers' expressing their perceptions on the relationship between importance of upkeep allowances and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	23	22	45
	% of Total	29	27	56
Not important	Count (N)	12	9	21
	% of Total	15	11	26
Not sure	Count (N)	5	9	14
	% of Total	6	11	17
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.49		
Standard deviation		0.506		
Chi-square test p - value		0.9		
*Relationship not statistically significant				

Note: Questionnaire data analysis

In this case, based on perceptions, over half of the pre-service teachers reported that the disbursement of an upkeep allowance is an important factor influencing them to complete teacher training, while a higher proportion of females than males held this view. However, a lower percentage of them reported that such a factor is not important, though a higher proportion of females than males held this opinion.

Apart from the analysis of the importance of upkeep allowances, the participants' perceptions regarding the significance of mentoring for pre-service teachers' stay in training were also analysed as indicated in Table 23.

Table 23

Number of pre-service teachers' expressing their perceptions on the relationship between importance of mentoring and staying in teacher training by gender

		Male	Female	Total
Important	Count (N)	28	26	54
	% of Total	35	32	67
Not important	Count (N)	6	9	15
	% of Total	7	11	18
Not sure	Count (N)	6	5	11
	% of Total	8	6	14
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.48		
Standard deviation		0.504		
Chi-square test p - value		0.25		
*Relationship not statistically significant				

Note: From questionnaire data analysis

Based on their perceptions, a higher proportion of pre-service teachers reported that mentoring is an important factor influencing them to stay in teacher training, while a higher proportion of females than males held this view. However, a very low proportion reported that such a factor is unimportant, though a higher proportion of males than females held this opinion.

4.3.3. Impact of recruitment on retention of pre-service teachers

The perceptions of pre-service teachers regarding the impact of recruitment procedures on their retention were analysed as illustrated in Table 24.

Table 24

Number of pre-service teachers' expressing their perceptions regarding the impact of recruitment procedures on staying in teacher training by gender

		Male	Female	Total
Impact	Count (N)	36	40	76
	% of Total	45	50	95
No impact	Count (N)	4	0	4
	% of Total	5	0	5
Total	% of Total	40	40	80
	% of Total	50	50	100
Mean score		1.5		
Standard deviation		0.577		
Chi-square test p - value		0.918		
*Relationship not statistically significant				

Note: From questionnaire data analysis

Based on participants' perceptions, while a higher percentage of the participants reported that the recruitment procedures have an impact on their stay in training, a smaller percentage relayed that these procedures have no such impact. In addition, the findings indicate a higher proportion of the female participants reporting that the impact exists. On the other hand, a very low proportion reported the non-existence of such an impact. As for the male participants, a higher proportion reported that the impact exists, while a very low proportion reported the non-existence of such an impact. In both cases, the pre-service teachers' perceptions were close to the mean rating score.

4.3.4. Usefulness of mentoring for pre-service teachers' retention

Having analysed the impact of mentoring on pre-service teachers' retention, this section presents the findings regarding the usefulness of the mentoring practice in terms of pre-service teachers' retention. In this context, Hays (2013) has defined mentoring as supporting, counselling, advising and guiding students in practice settings in terms of their intellectual development. In Malawi, mentoring involves experienced teachers providing professional support

to pre-service teachers as a component of the primary teacher training curriculum.

Given these ideas, the questionnaire had the following question whose participants' responses / perceptions regarding the usefulness of the mentoring programme in the primary teacher training programme in Malawi were analysed.

Indicate the usefulness of each of the following mentoring services towards your decision to remain in teacher training.

	1=Useful	2=Not useful	3=Not sure
Mentor observing your lesson	1	2	3
Observing your mentor's lesson	1	2	3
Maintaining a School Experience Journal (SEJ)	1	2	3
Peer lesson observation	1	2	3
Professional meetings	1	2	3
Mentor rating your SEJ work	1	2	3
Head teacher rating your SEJ work	1	2	3

Table 25 presents the findings on the usefulness of a mentor observing lessons regarding pre-service teachers' decision to remain in teacher training.

Table 25

Number of pre-service teachers' expressing their perceptions regarding the usefulness of a mentor's lesson observation on staying in teacher training by gender

		Male	Female	Total
Useful	Count (N)	40	34	74
	% of Total	50	43	93
Not useful	Count (N)	0	6	6
	% of Total	0	8	6
Total	% of Total	40	40	80
	% of Total	50	50	100
Mean score		1.8		
Standard deviation		0.447		
Chi-square test p - value		0.133		
*Relationship not statistically significant				

Note: From questionnaire data analysis

Based on their perceptions, while a very high proportion of the participants reported that observing the pre-service teachers' lessons is useful for them to remain in training, a low proportion of them reported that the practice is not useful. In addition, a higher proportion of female than male participants reported that this practice is useful. Also, very low proportions of both female and male participants reported that this practice is not useful.

Besides analysing the practice of a mentor observing a pre-service teacher's lesson, another analysis was conducted on the practice of pre-service teachers observing a mentor's lesson, whose results are presented in Table 26.

Table 26

Number of pre-service teachers' expressing their perceptions regarding the usefulness of a pre-service teacher's lesson observation on staying in teacher training by gender

		Male	Female	Total
Useful	Count (N)	38	33	71
	% of Total	47	41	88
Not useful	Count (N)	2	7	9
	% of Total	3	8	11
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.46		
Standard deviation		0.502		
Chi-square test p - value		0.607		
		*Relationship not statistically significant		

Note: From questionnaire data analysis

As per their perceptions, while a high percentage of the participants reported that observing a mentor's lessons is useful for them to remain in training, a smaller proportion reported that the practice is not useful. Besides, the findings indicate a higher proportion of female participants than male participants reporting that this practice is useful. Also, very low proportions of both female and male participants reported that this practice is not useful

Besides analysing the practice of pre-service teachers observing a mentor's lesson, another analysis was conducted on the practice of completing a SEJ whose results are presented in Table 27.

Table 27

Number of pre-service teachers' expressing their perceptions regarding the usefulness of completing a School Experience Journal (SEJ) on staying in teacher training by gender

		Male	Female	Total
Useful	Count (N)	40	40	80
	% of Total	50	50	100
Mean score			1.48	
Standard deviation			0.503	

Note: From questionnaire data analysis

Based on their perceptions, all the participants reported that completing a SEJ is useful for them to remain in training. Besides, the findings indicate a higher proportion of female than male participants reporting that this practice is useful.

Apart from analysing the practice of completing a SEJ in this study, another analysis was conducted on the practice of peer lesson observation whose results are presented in Table 28.

Table 28

Number of pre-service teachers' expressing their perceptions regarding the usefulness of peer lesson observation on staying in teacher training by gender.

		Male	Female	Total
Useful	Count (N)	38	33	71
	% of Total	48	41	89
Not useful	Count (N)	2	7	9
	% of Total	3	8	11
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score		1.46		
Standard deviation		0.502		
Chi-square test p - value		0.607		
		*Relationship not statistically significant		

Note: From questionnaire data analysis

Based on their opinions, while a high percentage of the participants reported that observing each other's lessons is useful for them to remain in training, fewer participants reported that the practice is not useful. Besides, the findings indicate a higher proportion of female than male participants that reported this practice is useful. Also, very low proportions of both female and male participants reported that this practice is not useful.

Apart from analysing the practice of observing each other's lesson, in this study another analysis was conducted on the practice of conducting professional meetings, whose results are presented in Table 29.

Table 29

Number of pre-service teachers' expressing their perceptions regarding the usefulness of professional meetings on staying in teacher training by gender

		Male	Female	Total
Useful	Count (N)	40	36	76
	% of Total	50	45	95
Not useful	Count (N)	0	4	4
	% of Total	0	5	5
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score			1.47	
Standard deviation			0.503	
* Chi-square test p - value			0.918	
			* No statistical significance	

Note: From questionnaire data analysis

According to their perceptions, while a very high proportion of the participants reported that conducting professional meetings is useful for them to remain in training, only very few reported that the practice is not useful. Additionally, the findings indicate a higher proportion of female participants than males who reported that this practice is useful. Also, very low proportions of both female and male participants reported that this practice is not useful.

Apart from analysing the practice of conducting professional meetings, in this study, another analysis was conducted on the practice of a mentor rating a pre-service teacher's SEJ, the results of which are presented in Table 30.

Table 30

Number of pre-service teachers' expressing their perceptions regarding the usefulness of a mentor's rating of SEJ on staying in teacher training by gender

		Male	Female	Total
Useful	Count (N)	37	32	69
	% of Total	46	40	86
Not useful	Count (N)	3	8	11
	% of Total	4	10	14
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score			1.46	
Standard deviation			0.502	
* Chi-square test p - value			0.614	
* No statistical significance				

Note: From questionnaire data analysis

Based on their opinions, while a higher percentage of the participants reported that the practice of a mentor rating a pre-service teacher's SEJ is useful for them to remain in training, a small percentage reported that the practice is not useful. Besides, the findings indicate a higher proportion of female than male participants who reported that this practice is useful. Also, very low proportions of both female and male participants reported that this practice is not useful

Apart from analysing the practice of a mentor rating a pre-service teacher's SEJ, in this study another analysis was undertaken on the practice of a head teacher rating a pre-service teacher's SEJ whose results are presented in Table 31.

Table 31

Number of pre-service teachers' expressing their perceptions regarding the usefulness of a head teacher's rating of SEJ on staying in teacher training by gender

		Male	Female	Total
Useful	Count (N)	36	31	67
	% of Total	45	38	88
Not useful	Count (N)	4	9	13
	% of Total	5	11	16
Total	Count (N)	40	40	80
	% of Total	50	50	100
Mean score			1.46	
Standard deviation			0.502	
* Chi-square test p - value			0.617	
* No statistical significance				

Note: From questionnaire data analysis

According to the opinions, while a high percentage of the participants reported that a head teacher's rating of a SEJ is useful for the pre-service teachers to remain in training, few of them reported that the practice is not useful. Besides, the findings indicate a higher proportion of female participants than males who reported that this practice is useful. Also, very low proportions of both female and male participants reported that this practice is not useful.

4.4. Findings from the interviews with participants

Having presented this study's results from the quantitative data analysis, this section presents the findings from an analysis of the qualitative data. The data was obtained from the in-depth interviews conducted with twelve participants comprising mentors, teaching practice coordinators, and teacher trainers. The findings were obtained following a thematic analysis approach to the transcriptions of the recorded in-depth interviews. In this context, this section presents the results regarding the influence of mentoring and the strategies that

encourage pre-service teachers in Malawi to complete their initial teacher training.

4.4.1. Influence of mentoring on pre-service teachers' retention

This section presents the research findings regarding how mentoring influences pre-service teachers to complete their training. A thematic analysis of the participants' various statements made during the interviews led to the development of several themes. The following four emerging themes portrayed how mentoring as a component of pre-service teacher training influences the pre-service teachers to stay in training. The themes are presented in the following sub-sections and illustrated with verbatim participant responses using pseudonyms.

4.4.1.1. Sharing professional skills

The participants reported that in teacher training, a mentor is assigned at least six pre-service teachers to look after throughout their teaching practice period. Since the mentors are experienced, they share their classroom knowledge and teaching and learning skills with the pre-service teachers. Also, the head teachers of the teaching practice schools provide the pre-service teachers with the necessary skills regarding how to go about the teaching and learning process.

In this regard, one participant stated: "As pre-service teachers gain the skills of lesson planning and teaching regularly, they feel equipped and empowered to be able to handle classes on their own..." (TT₁). In this case, the mentors assist in inculcating the relevant knowledge and skills in the pre-service teachers, including how to develop meaningful lesson plans. Since lesson planning is a daily affair, the pre-service teachers master the art easily and eventually manage the process over the teaching practice period.

Similarly, the sharing of relevant skills with pre-service teachers was also echoed by another participant who remarked: "...I provide relevant advice to pre-

service teachers on professional skills..." (TT₂). In this context, the mentors and teacher trainers ensure that proper advice on how the pre-service teachers should carry out their professional duties is provided so as to facilitate a successful teaching practice period. Furthermore, the sharing of professional experiences in the schools takes place across all the teaching staff, thereby benefitting pre-service teachers even more. On this note, another participant indicated that: "...the gained skills, values and attitudes are shared amongst the pre-service teachers and even with the qualified teachers..." (TT₃). In this regard, information sharing in the school becomes holistic because the pre-service teachers derive relevant knowledge and skills from people who have different experiences. However, it was reported that the sharing of relevant skills with the pre-service teachers has a bearing on the mentor's capabilities. On this note, another participant observed: "...it all depends on the mentor's competence and professionalism to share teaching skills and knowledge with trainees..." (TT₄). Hence, where the mentor is knowledgeable and willing to share the relevant skills with the pre-service teachers, coupled with the ability to properly share the same, the latter feel encouraged to stay in training.

However, to a lesser extent, some participants reported that sharing professional skills was not perceived as a factor that can influence pre-service teachers to stay in training. On this note, one participant detailed:

Institutions do not have common professional practices, as a result each institution does it when it feels, this leads to students dropping out of one training to another. There is no information sharing among institutions... There is no guideline to bar students from free movement from one course to another... (TT₈).

In this regard, some of the training institutions seem not to share notes on how best relevant skills can be imparted to the pre-service teachers. Hence, such institutions also fail to utilise the aspect of sharing professional skills with their pre-service teachers to retain them in teacher training.

Therefore, since human capital theory suggests the acquisition of relevant knowledge and skills necessary for occupational choice and productivity in the workplace (Crocker, 2006), the sharing of professional skills during mentoring provides the relevant human capital to pre-service teachers through teaching and learning skills. This acquired human capital makes them feel confident and eventually influences them to complete their teacher training. However, not every pre-service teacher acquires such human capital as some fail in the process and end up withdrawing from the programme.

4.4.1.2. Providing professional support

The sharing of skills as part of the mentoring practices also entails professional support for the pre-service teachers. In this regard, the research participants reported that professional support also influences the pre-service teachers to stay in training. The participants mentioned several aspects that contribute to professional support. For instance, one participant stated:

Again the mentoring focuses much on the classroom routines, methods of lesson delivery, which of course is good, and not neglecting the other areas of the profession, such as, career paths and prospects of teaching. We have to assure them that with the path they have taken they can grow professionally, get satisfying positions through provision of professional support throughout the period of teaching practice (TPC₁).

Hence, in their work, the mentors emphasise the professional aspects that the pre-service teachers need to master as they practise teaching. In the process, they fulfil their duty of providing professional support. Regarding this, a participant said: "... practically, professional support, passion and expertise of the mentors gradually build confidence in them, certainty and professional fortitude..." (TT₅). In this case, the mentors' professional support as provided to the pre-service teachers enables them to become composed, competent and feel confident when handling learners in a classroom situation. This assertion

was also supported by a participant who remarked: "... professional support gives student teachers a means to build a strong foundation for teaching as a profession..." (TT₃). As a result, the pre-service teachers work hard and persist in their training until they qualify as trained teachers. Therefore, the professional support is meant to complement the human capital that the pre-service teachers acquire during their college-based phase of training for them to succeed and increase their productivity in their teaching practice. Eventually, the pre-service teachers feel encouraged, hence they are influenced to continue their training.

4.4.1.3. Guidance and counselling

Besides providing professional support as a retention mechanism, the participants also reported that the mentoring of pre-service teachers involves guidance and counselling. This aspect mainly addresses daily social problems that the pre-service teachers encounter. For instance, they usually receive their upkeep allowances late. As a result, some of them lack financial support since most pre-service teachers do their teaching practice in schools far away from their relations, who would otherwise support them financially. On this note, a participant reported that "Mentors advise and counsel them to lessen their worries like when allowances delay..." (TT₆). In such instances, the mentors advise the pre-service teachers on the need to persevere while requesting those who have the resources to share with colleagues that have nothing to sustain their stay in the teaching practice schools. As a result, the pre-service teachers feel encouraged and persevere amidst hardships during the teaching practice period, hence they can remain in teacher training until completion.

Given this scenario, some participants also reported that guidance and counselling for pre-service teachers includes providing career talks. In this regard, a participant said: "One teacher training college has tried to include a talk on career path. It includes where the profession can take them to and providing them with role models or those who have excelled with the profession..." (MT₁). Also, another participant remarked that: "... we also need to talk about the career

path one can get up to with the teaching field they have chosen...” (TT₂), Similarly, another participant observed: “This will allow them to have ambitions and set their own goals that would motivate them to be there and work hard” (MT₃).

In this case, when the pre-service teachers are properly guided on the career path they will undertake once they complete their studies, they become sufficiently knowledgeable and get to know the prospects of their profession better. Regarding human capital theory, the guidance and counselling service that mentors provide to the pre-service teachers equips them with relevant knowledge, skills and attitudes that facilitate their preference for the profession even more, thereby increasing their productivity in the classroom. However, some participants expressed reservations regarding the effectiveness of guidance and counselling in relation to pre-service teachers’ retention. For instance, one participant observed:

... they don't think there is any matching between what they get from the mentors and the reality on the ground. They see how the qualified teachers are going through and they can tell that they are going to pass through that same conditions... (MT₁).

This assertion implies that some pre-service teachers do not take the advice given to them regarding their chosen profession, to the extent that they eventually withdraw from the programme, suggesting that they consider the guidance and counselling initiative provided to them as lacking any tangible benefit.

4.4.1.4. Rapport

While guidance and counselling is considered as one determinant ensuring pre-service teachers’ retention, the participants also reported that, in the process of mentoring, the pre-service teachers are trained on how to relate well with each other, the experienced teachers in the teaching practice schools, and

the surrounding community respectively. In this way they establish a good relationship that improves their rapport with the stakeholders, hence they enjoy their profession and eventually complete their studies. On this note, a research participant said: "...good relations help to establish a common approach and understanding of situations and tasks..." (TT₇). As a result, the pre-service teachers feel encouraged and become part of the community, thereby they eventually decide to continue their teacher training course.

However, in some instances, the said rapport does not exist and that affects retention efforts. As a participant observed: "The people in society comment negatively about teaching so they have pre-conceived negative ideas about teaching..." (TT₂). This behaviour demoralises the pre-service teachers since it disrespects their chosen profession, meaning that some of the pre-service teachers do not relate well with the communities which they serve and eventually withdraw.

4.4.2. How mentoring fails to influence retention

Inasmuch as the participants reported the ability of mentoring to influence pre-service teachers' retention, the participants also reported that some mentoring conditions do not influence them to complete their primary teacher training. Several significant reasons emerged from their responses as indicated in the following four thematic sub-sections.

4.4.2.1. Mentors' poor working conditions

Regarding this idea, a participant said: "...they see what the qualified teachers are going through and they can tell that they are going to pass through the same conditions..." (MT₁). Similarly, another participant underlined: "Most working stations are not appealing enough to accentuate the professionalism of the job..." (MT₂). In this context, what the pre-service teachers see are poor conditions in teaching practice schools, hence they become disappointed with the environment in which their profession operates. As a result, some qualified

and experienced teachers – including mentors – resign from the profession due to unfavourable work conditions.

However, some mentors remain on the job as reported by another participant: “...leaving teaching sounds remote to me because my prestige is in the products and I wish I contributed more to the development of the nation, through my contributions in the teaching profession...” (MT₃). This assertion implies that there are some mentors who value the teaching profession highly and they do not harbour any intention of giving up, despite the poor working conditions.

4.4.2.2. Inadequate capacity building

In addition to the poor school working conditions, the participants reported that the initial training provided to mentors is insufficient and irregular. On this note, a participant remarked: “... design a training schedule where provision of reflective performance can be discussed and find a way forward...” (TT₂). This statement implied that most mentors wish to have adequate training to carry out their duties competently and efficiently. Indeed, most of the mentors were trained only once, thus limiting the relevant human capital that would enable them to provide professional support to the pre-service teachers.

To add to this, mentoring only involves teaching and learning issues that the pre-service teachers need to follow and practise. Mentoring does not include orienting them on professional prospects or those opportunities that can influence pre-service teachers to complete their training. Despite some of the mentors receiving irregular training that negatively impacts on the pre-service teachers, they also feel duty-bound to assist the novices. As one participant remarked:

We have to assure them that with the path they have taken they can grow professionally and get satisfying positions. This situation is not there, but I feel it must start right from the TTC and continue in teaching practice school (MT₂).

This idea purports that mentors need to encourage pre-service teachers, in one way or another, to persist in their training in anticipation of their future productivity and economic gain, as advocated by human capital theory.

4.4.2.3. Lack of incentives

Given that inadequate capacity impacts on mentoring, the lack of incentives for mentors was reported as another factor impacting on mentoring. In this context, a participant reported that: "...since even the number of meetings and training supported by development partners are drastically reduced, the situation renders us financially unstable due to lack of supplementary income..." (MT₂). Another participant echoed these sentiments by observing that: "...unwelcome stories of delayed salaries which seemingly are not appetizing, [it] deprives the nobility of the teaching profession and brings fear among teacher novices..." (TPC₃). Furthermore, one participant stated: "Every job must be rewarding... lack of incentives to support teacher moral development towards the job leads many joining other careers..." (MT₂). Hence, most mentors complain about the delayed payment of mentoring allowances administered by the Ministry of Education through the teacher training colleges, leaving them feeling disgruntled. Additionally, the mentors' frustration due to lack of monetary benefits influences their ignoring of their mentoring work. Therefore, the pre-service teachers lack professional support, hence some of them withdraw from teacher training. Despite these shortcomings, some mentors are determined to help, as reported by one participant who stated: "I have passion for the job and the exponential impact to communities, society as well as the nation. I enjoy seeing many young nationals grow intellectually and professionally. My impact is vividly evident..." (TT₃). In this regard, such mentors perceive lack of incentives as trivial as they value contributing relevant human capital to the younger generation, which, according to human capital theory, helps individuals to become productive in the future and reap certain economic benefits.

4.4.2.4. Increased workload

Besides the lack of incentives impacting on mentoring, the participants also reported increased workload as another mentoring drawback. In this case, the introduction of a SEJ not only enhanced the primary teacher education curriculum, but also required the mentors and head teachers to work on it. In the journal, the pre-service teachers document their professional experiences across the entire teaching practice period. For this reason, and as required, the mentors and head teachers rate the SEJ on a weekly basis while most participants made remarks along the following lines: "... the inclusion of SEJ makes mentors busy with this project rather than other professional issues..." (MT₃), implying that the rating process increases the workload of mentors in addition to their normal teaching school assignments. As a result, some of the mentors' attitudes towards the role become negative and they eventually ignore their duties. This situation disappoints some of the pre-service teachers who eventually withdraw from the training. However, despite some mentors perceiving the mentoring exercise as an extra workload, some of them devote themselves fully to it. In this regard, a participant remarked: "Practically, the passion and expertise of the mentors gradually builds confidence, certainty and professional fortitude among pre-service teachers..." (TPC₂). This assertion clearly shows that some mentors possess positive attitudes towards the exercise, despite its bottlenecks, and they are willing to assist the pre-service teachers always.

4.4.3. Strategies for promoting pre-service teachers' retention

Having presented the participants' reports on how mentoring influences pre-service teachers' retention – and how it fails to do so – this section presents six thematic areas that reflects the participants' opinions on strategies for promoting retention.

4.4.3.1. Payment of upkeep allowances

The pre-service teachers receive upkeep allowances to cater for their incidentals. The upkeep allowance for those in teaching practice schools is higher than for those in college-based institutions due to high social, personal and professional needs during the teaching practice period. To some extent, the allowance motivates them, and they feel encouraged to continue their teacher training. On this note, a participant reported: “The allowance is an inducement to most school leavers...” (TPC₁). In this regard, although some participants noted that teaching is considered a poorly-paid job as stated by one participant: “... most student teachers take employment as a source of wealth, so they look at teaching as low income generating job...” (TT₄), many participants emphasised the need to pay the upkeep allowances to ensure that pre-service teachers stay in teacher training. In this regard, a participant remarked: “...pay allowances in time to encourage them...” (MT₂), while another participant stated: “...trainees look up to the money they get monthly to buy their necessities...” (TPC₂). Meanwhile, another participant observed:

Improve the standards of those already in-service so that the recruits view the nobility of the profession to make long term permanent professional decisions and stay in the profession rather than take teaching as a vehicle to other "better paid" jobs... (TT₅).

Hence, pre-service teachers can remain committed to their training by being paid the monthly upkeep allowance, as it facilitates the purchase of items that are also necessary for their teaching practice. However, participants recommended an increase in the amount of the allowance in view of the prevailing economic situation. On this note, a participant noted: “The government needs to revise the training allowances from time to time because prices of goods keep on rising from time to time...” (MT₁).

4.4.3.2. Payment of tuition fees

Although it was reported as necessary to pay the upkeep allowances, the participants also reported that pre-service teachers can stay in training if they are made to pay tuition fees. At the time of the study, the Ministry of Education charged no tuition fees in primary teacher training colleges, despite some pre-service teachers withdrawing to join fee-paying institutions. The reason for the free training was that Malawi adopted a free primary education policy in 1994, hence the Ministry of Education extended the policy to primary teacher training. Therefore, by providing free teacher training, more candidates were attracted to join the profession. In this regard, one participant said: "...student teachers stay on, knowing that only [a] teaching career is for free. Other training careers are expensive, and they cannot afford to pay..." (TPC₂). However, some participants indicated that by not charging fees during teacher training, some of them were not committed enough, thereby they could decide to withdraw at any time, knowing that they never invested anything towards their training. For instance, a participant remarked:

The government must make the profession attractive by offering better conditions of service. Change of recruitment criteria such as taking only those interested in teaching and introducing tuition fees just like many other tertiary education. This will mean that only those interested will be ready to pay to be trained for the profession... (TT₄).

Similarly, another participant mentioned the need for pre-service teachers to pay tuition fees by underlining: "...introduce tuition so that only those interested in teaching are ready to pay their money for the training..." (TT₄). The same suggestion was made by another participant who observed: "...students to pay contribution fee, no need for allowances, thus, only those who are wilful and committed and genuine students will apply..." (TP₃). In this regard, the participants recommended that pre-service teachers needed to pay some tuition fees so that they stay committed, because they will have invested in their own

training, thus they might feel obliged to complete the training since not doing so would imply wasting resources.

4.4.3.3. Induction of pre-service teachers

Besides recommending the payment of tuition fees, the participants also reported that another strategy that retains the pre-service teachers is the provision of an orientation programme at the start of their training. On this note, a participant stated:

...we have to assure them that with the path they have taken they can grow professionally and get satisfying positions. This is not there but I feel it must start right from the TTC and continue in teaching practice schools... (MT₂).

In this case, orienting pre-service teachers about the professional prospects of teaching at the beginning and also during the training, encourages them to stay until they complete. This idea ensures that they are knowledgeable of the expectations they need to meet. One participant reflected on this idea by underlining:

I later realized that teaching is the mother profession producing all other professions. I feel proud to be associated with those people who are making of other professions to become possible. Engineers, medical doctors, politicians, etc. are possible only when a teacher has done his job... (TT₂).

In this scenario, the participant meant that orientation encourages them to stay in training since the profession contributes towards the training of other professionals. This statement was corroborated by another participant who remarked: "A clear statement of job description, requirements and expectations need to be pronounced clearly and distinctly in the job advertisements to ensure that prospective trainees know what teaching entails..." (TT₁).

Hence, the induction informs pre-service teachers about their training and career prospects and, in the process, they are influenced to finish their training.

In this context, orienting the pre-service teachers at the start of their training course increases their human capital with regard to the profession, thereby they are encouraged to successfully finish the training.

4.4.3.4. Role-modelling

Given that the pre-service teachers can be retained by conducting induction sessions, the participants also reported that role-modelling is another useful strategy for ensuring their retention. In this context, a participant stated: "...they lack good role models to convince them to stay in teaching..." (TT₃). This is a clear manifestation that pre-service teachers need to have other teaching professionals to look up to, who would convince them of the need to successfully complete their studies. On this note, another participant observed: "...they need proper guidance from lecturers at the start of the course regarding the goodness of teaching profession..." (TT₄). In this case, the strategy of induction complements the strategy of role-modelling pre-service teachers in order to retain them in teacher training.

On another note, an element of role-modelling was also reflected in the statement offered by another participant: "Practically, the passion and expertise of the mentors gradually builds confidence, certainty and professional fortitude..." (TT₂). In another instance, a participant emphasised: "...being role models to student teachers, the lecturers need to teach them the skills of good teaching..." (MT₃). In the context of these statements, it becomes clear that the pre-service teachers require veteran teachers to demonstrate best practices to them to influence them to sustain their studies. Thereby, a good relationship between them and the surrounding community becomes paramount as reflected in the next section.

4.4.3.5. School-community partnership

As part of the strengthening of the relationship between a school and the surrounding community, the participants reported that the establishment of a

partnership initiative between teaching practice schools and the surrounding community also encourages the pre-service teachers to complete their training. The participants indicated that both the pre-service teachers and the community initiate and implement a partnership that facilitates the socio-economic and professional well-being of both parties. In this regard, a participant stated: “Government and communities need to improve the school environments, by providing good accommodation for teachers, good school blocks for them to enjoy the job...” (TPC₂). Once the community has provided such amenities, the pre-service teachers feel encouraged and accepted by the community whose children they teach. Similarly, another participant who supported the idea of strengthening the partnership between the community and the school observed: “...we need to improve the relationship between student teachers, school staff and community...” (TT₃). Such a partnership influences the pre-service teachers to stay in teacher training, while the latter is possible because in some instances the communities mobilise themselves to source some essential provisions such as foodstuffs for other pre-service teachers as their partners. This strategy becomes handy, especially when the payment of upkeep allowances is delayed as is usually the case. The partnership also includes holding cultural and educational exhibitions during joint open school days. On this issue, one participant reported that “school open days help to concretise the relationship between schools and parents...” (MT₄). This assertion is significant because during open school days, teachers and the learners display various social cultural aspects to members of the community. Through such initiatives, the community appreciates what their children are learning in school, hence they provide support to the school. Eventually, the pre-service teachers decide to do their teaching practice in such schools.

4.4.3.6. Readmission of pre-service teachers

A good partnership between a school and the community is further enhanced through a strategy of readmitting pre-service teachers who might have

withdrawn from training due to various reasons. The participants reported that readmitting pre-service teachers who in one way or another failed to continue with their teacher training also influences the pre-service teachers to stay in training. Regarding this idea, one participant remarked: "...especially females who are expecting, they can withdraw and re-join in the following year, and those who might withdraw on health grounds, are also readmitted into the training once they get well..." (TPC₃). In this case, although at the time of withdrawing it would appear as if attrition impacts negatively on the teacher education subsector, in the long term, when those that withdrew return to teacher training, retention is achieved. Despite some participants recommending readmission of pre-service teachers as a strategy for retention, another participant disagreed with the idea:

Student teachers are not satisfied with the profession. They use teaching as a breather, they have nowhere to go, and when they see elsewhere being promising, they immediately leave. In general, the profession is not motivating and attracting to school leavers... (MT₁).

In this context, it implies that even if they are given a second chance to study and complete their training, such pre-service teachers are still attracted to other jobs and, when an opportunity arises, they withdraw again. Hence, this strategy may not always succeed in retaining pre-service teachers.

4.4.4. Limitations of the qualitative findings

In this research study, despite designing the interview questions in a simple manner, some participants misunderstood the questions. However, an effort was made to explain the questions further. As a result, it took a long time to finish interviewing one participant. In some instances, even after thorough explanations, the responses provided were still off-point and sometimes unclear. There were also cases of disturbances during the process of interview emanating from participants' workmates or learners. Such disturbances halted proceedings for some time, thereby making it difficult to fulfil scheduled interviews on a given day, in which case some interview sessions had to be rescheduled.

4.4.5. Chapter conclusion

This section presents the conclusion of this chapter, which outlined both the study's quantitative and qualitative findings. Firstly, the participants' demographic information included the pre-service teachers' ages, gender, marital status, college level (year), and their programme of study. This information was valuable as it portrayed the demographic characteristics of the research participants. The majority of the participants studied through the Conventional mode, while a few studied through the ODL mode, and some sampled participants were in their first year, while others were in the second year of training.

In terms of the demographic data, the participants reported four important reasons that influenced them to enrol for teacher training, including teachers' influence, the desire to teach children, the availability of opportunities to advance their education, and a love of the subject matter. However, parental influence and the lack of other career options were not important reasons influencing them to enrol for teacher training.

Apart from the above reasons, the participants' perceptions indicated that more participants reported that pre-service teachers' age, gender and interest in the programme, are related to their likelihood to remain in training.

Significantly, more respondents reported that recruitment procedures impact on the pre-service teachers' decision to remain in teacher training. These include pre-service teachers' induction, selection based on district of origin, applicants' pre-requisite qualifications, and applicants' performance in an entrance test.

Also, regarding mentoring practices, half of the participants reported that observing the pre-service teachers' lessons is useful for their decision to remain in the training, while less than half of them reported that the practice is not useful. Additionally, observing a mentor's lesson, completing a SEJ, observing each other's lessons, conducting professional meetings, mentor's rating of a pre-

service teacher's SEJ, head teacher's rating of a pre-service teacher's SEJ are useful for them to remain in training.

Furthermore, a thematic analysis of the participants' statements made during the interviews revealed that mentoring as a component of pre-service teacher training influences the pre-service teachers to remain in training. The participants cited aspects such as sharing of classroom teaching and learning knowledge and skills with the pre-service teachers, provision of professional support to the pre-service teachers, guiding and counselling, and good relationship with stakeholders as important in influencing them to remain in training.

On the contrary, mentoring also fails to influence retention, especially where there are poor mentoring conditions. Some qualified and experienced teachers, including mentors, resign from the profession due to the unfavourable work conditions. Besides poor school conditions, the participants reported that the initial training provided to mentors is insufficient and irregular. Also, a lack of incentives offered to mentors was reported to be another impacting factor. In this context, most mentors complain of delayed payments of mentoring allowances. Additionally, the mentors' frustration due to lack of monetary reward means that they can neglect their mentoring work. Therefore, the pre-service teachers lack professional support, hence some of them withdraw from teacher training.

In addition to the lack of incentives impacting on mentoring, the participants also reported increased workload as another drawback of mentoring. However, despite some mentors perceiving the mentoring exercise as an extra workload, some of them devote themselves fully to the function.

Regarding the strategies for promoting pre-service teachers to stay in teacher training, the participants reported that paying an upkeep allowance, charging tuition fees, role-modelling, good school-community relationships, and the readmission of withdrawn pre-service teachers are important strategies for retaining the pre-service teachers. The next chapter will now discuss the findings of this study in detail.

Chapter 5: Discussion

5.1. Introduction

This chapter discusses the findings presented in the preceding chapter. While Section 5.1 discusses the overview of this discussion chapter, Section 5.2 discusses the reasons that the research participants mentioned for choosing to become primary school teachers. According to Ashiedu and Scott-Ladd (2012), it is important to discuss such reasons because they explain why people decide to stay in the teaching profession. Section 5.3 discusses the extent to which age, gender, and job interest, relate to the pre-service teachers' stay in training. The impact of recruitment procedures on pre-service teacher retention is discussed in Section 5.4. In turn, Section 5.5 examines the extent to which the various mentoring practices influence pre-service teachers' stay in training. Section 5.6 discusses the strategies that primary teacher training colleges in Malawi, put in place to influence the pre-service teachers' stay in training. Finally, Section 5.7 concludes this chapter's discussion.

The main question of this research study was:

What factors influence the retention of primary pre-service teachers in Malawi?

The detailed discussion in this chapter reflects the research findings which address the study's research questions:

1. To what extent do age and gender affect pre-service primary teachers' intention to complete training in Malawi?
2. How can recruitment procedures and mentoring practices influence the retention of pre-service primary teachers in Malawi?
3. What strategies do primary teacher education institutions follow to promote retention in Malawi?

5.2. Reasons for choosing a teaching career

In this study, the pre-service teachers indicated various reasons for joining the teaching profession. They choose to become primary school teachers mainly because of four reasons: the influence of their teachers; the desire to teach children; opportunities for further education as offered by a teaching career; and the love of the subject matter. However, the extent to which these reasons influence them to become teachers varies. For instance, since the influence of their teachers was the most highly rated reason, in some instances, the other motives influenced some people to choose the teaching career. On the other hand, parental influence and the lack of other career options were considered unimportant in their choosing the teaching profession. The implication is that pre-service primary teachers in Malawi are not influenced by their parents to become teachers. Additionally, even the lack of other jobs does not inspire them to become teachers. However, some of them might have chosen a teaching career because they could not secure employment in other more preferred careers. Regarding the availability of opportunities for further education, Chakwera (2009) has observed that many primary school teachers in Malawi enrol for higher education than their counterparts in other professions where such opportunities do not exist.

However, does their desire to teach learners and the availability of further education opportunities within teaching career ensure one's decision to stay in primary teacher training? This study's findings, namely that pre-service teachers choose their career to teach children, corroborates the findings of a related study in Turkey. In that study, Topkaya and Uztosun (2012) established that pre-service English language teachers choose the teaching career to shape children and adolescents' values, thereby influencing the next generation. Similarly, although Pridmore (2014) has indicated that in the Malawian context, education helps to inculcate certain values, attitudes and purposes in learners and stakeholders, it is unclear whether pre-service teachers choose to teach children based on the intention to impart given values and attitudes.

Furthermore, there is a clear connection linking the pre-service teachers' reasons for joining the teaching profession with human capital theory. This theory postulates that human capital pertains to the acquisition of knowledge and skills necessary for one's productivity, and an ability to make a given occupational choice (Almendarez, 2001; Olaniyan & Okemakinde, 2008). Hence, the pre-service teachers' desire to improve their qualifications to achieve further opportunities within a teaching career is a manifestation of human capital investment. In addition, the acquisition of more knowledge and skills that eventually increase the pre-service teachers' productivity and efficiency (Almendarez, 2001; Olaniyan & Okemakinde, 2008) results in human capital investment. On this issue, teachers in Malawi who successfully improve their educational qualifications increase their human capital, hence, they have greater knowledge and skills. Eventually, they are provided with more teaching career opportunities and receive higher salaries. However, not everybody who improves their qualifications to access higher education opportunities has the same amount of human capital.

5.3. Relationship between age, gender, interest and retention

Besides the pre-service teachers' reasons for choosing the career, the results of this study indicated that pre-service teachers' age is related to their likelihood to stay in teacher training. In this context, while there is no applicant age limit for the primary teacher training programme, presumably, older pre-service teachers are mature enough to make informed decisions, including the need to remain in teacher training. Also, some younger pre-service teachers can withdraw from the teacher training because oftentimes they are not fully settled on their career decisions, hence they may continue to search for alternative education opportunities. However, even older pre-service teachers may also decide to withdraw and look for other opportunities, and some young pre-service teachers can also persist in their training compared to their older counterparts. Additionally, younger pre-service teachers do not have family responsibilities that

would necessitate them to stick to readily available employment opportunities to support their families.

In this regard, in a study in the US, Canada and the United Kingdom, Blondal, Field and Girouard (2002) observed that the association between pre-service teachers' age and inter-school mobility consistently confirmed the human capital model. The model suggests greater mobility among young teachers due to a strong influence of economic variables on mobility decisions, particularly among male teachers (Blondal, Field, & Girouard, 2002). Similarly, in Malawi, younger pre-service teachers who supposedly have amassed valuable human capital, before, during and after their teacher training, leave the profession in pursuit of occupations that pay higher salaries (Ungapembe, Nkhokwe, & Furukawa, 2017). Similarly, Donaldson (2012) in a study on the US 'Teach for America' programme, confirmed that older teacher training entrants have a lower risk of leaving low-income schools, the teaching profession, and assume broader school-based roles than do younger entrants. Additionally, older entrants' backgrounds differ from their younger counterparts because the former are significantly more likely than the latter to be male, African-American, and to have lived before in the locality where they eventually work. Donaldson (2012) has also noted that among those who leave teaching, older entrants' reasons for doing so differ significantly from those remarked on by younger entrants. Older teaching entrants are considerably more likely than younger candidates to cite family or health matters as a significant factor in their decision to leave. However, despite the variety in backgrounds of both older and younger entrants, each can still leave teaching because of other issues.

Besides pre-service teachers' age, this study found no statistical significance in the association between the pre-service teachers' gender and the completion of their training. In a related study, Moses, Admiraal and Berry (2016) have also noted no statistical significance in the association between gender and teachers' commitment to teaching. However, in this study, data provided by teaching practice coordinators showed that more male pre-service teachers complete their teacher training than their female counterparts. Furthermore,

despite enrolling both male and female pre-service teachers on an equitable basis, more female pre-service teachers withdraw from the training programme, mostly due to pregnancy. However, they are readmitted in the subsequent academic year. In this context, human capital theory is well applicable. According to Kelsey (2006), examples of human capital include support provided by administrators and other teachers, promotions, community and working conditions. If female pre-service teachers are given the support necessary as a human capital component, they can complete their teacher training easily. That support can be in the form of guidance and counselling on the social issues they face which, to a certain extent, disturb their training. However, if left unsupported, they are easily side tracked by social demands and eventually leave teacher training. In this regard, Bentley and Adamson (2003) have argued that women accumulate human capital at a slower rate than men do because parental responsibilities interrupt their participation in the workforce. However, the pace at which women accumulate their human capital might not necessarily be the reason why some of them do not complete their training because some men accumulate their human capital at an even slower rate than their female counterparts, hence other factors could be causing more women than men to withdraw from the training programme.

On the contrary, in a previous research study conducted in central Florida, Whiteman (2004, as cited in Doherty, 2006), stated that retention and success rates are higher for females than males and that the former are more likely to complete or succeed in web-based careers and technical teacher preparation courses. Similarly, in a research study in Botswana and Ghana, Dunne and Leach (2005) have argued that students and teachers' experiences of schooling are significantly related to their gender, hence their assertion corroborates the findings of this study. Additionally, Whiteman's (2004) findings do not negate this study's results because the respective contexts are different.

Apart from the relationship between gender and the pre-service teachers' retention, in this study, participants indicated that their interest in the teaching profession was related to their stay in training. In this regard, interested pre-

service teachers are more likely to complete their training than those who are not interested. However, one's interest would not only be invested in one job since interest in a job is dynamic (Porter & Bear, 2014). Interest is dynamic because an individual can initially have a keen interest to become a primary school teacher, but later develop an interest in another profession such as medicine. In addition, as reported in this study too, in a study conducted in the USA, Porter and Bear (2014) concluded that individuals who show an interest in teaching, eventually apply for admission into teacher training. However, the pre-service teachers might be interested in specific aspects of the training programme, but this study did not focus on such specific features. For example, some of them might be interested in the benefits of the programme, its duration, subject matter or even the teaching practice placements, yet others may not be interested in any of these aspects. Consistent with this study's findings, in a related study in Singapore, Low et al. (2011) established that an interest in teaching is ranked either first or second as the main motivator for pre-service teachers' career choice. This situation is a welcome development given the importance of interest in a job as a motivating factor for career decision-making. However, Whitehead (2007) has contradicted the findings of this study. In a previous survey in Accra, Whitehead realised that one's initial interest in teaching has a relatively small impact on teacher retention in that some of those that have a keen interest to become teachers also do not stay in training. For the Malawian context, through this study, it was also reported that some pre-service teachers that initially have interest in teaching do not complete the course. Whitehead has also argued that apart from interest, professional factors also affect the persistence of primary school teachers in Ghana. Such professional factors include the practice of teaching, teaching load, teaching assignments, classroom- and student-related factors. Similarly, such factors may be applicable in the Malawian context, although the extent of their effect may vary.

5.4. Relationship between recruitment and pre-service teachers' retention

Pre-service teachers in Malawi's admission process takes into account several factors. These include applicants' place of residence, the quality of their pre-requisite certificate, applicants' induction, and performance in an entrance test. In this regard, Coultas and Lewin (2002), discovered that countries such as Ghana, Lesotho, Trinidad, Tobago and Malawi recruit pre-service teachers for primary schools based on factors such as age, religious affiliation, home background, prior educational qualifications and amount of teaching experience. However, in Malawi, consideration of the amount of teaching experience is not applicable because pre-service teachers are school leavers with no prior experience of teaching. Similarly, in a research study on Greek teachers' competence as a prerequisite for entering the profession, Liakopoulou (2011) has indicated that pre-service teachers' values and opinions about the teaching profession are some of the factors considered for recruitment purposes.

Given this information, in this study, the findings indicated that the recruitment of pre-service teachers for training based on their place of residence is related to their likelihood to stay in training. However, a few participants held a contrary view. Since pre-service teachers in Malawi are recruited mainly from rural areas and do their teaching practice in the same locations, they become familiar with the environment. As a result, they remain in teacher training possibly because they do not have much exposure to other professions apart from teaching, which is dominant in rural communities. Su et al. (2001) and Su et al. (2002) investigated the same phenomenon in China and Tibet. They found that most teachers coming from rural areas persist in their teacher training. Similarly, Dai, Sindelar, Denslow, Dewey and Rosenberg (2007) stated that candidates who grow up in a specific high-need area often accumulate more location-specific human capital about the area, thereby offering them the advantage of adapting to the community and connecting well with the students there. Considering human capital theory, which emphasises the acquisition of the knowledge and skills necessary for one's workplace productivity, the possession

of location-specific human capital is paramount as it assists workers in coping with their environment. However, even though some pre-service teachers may be equipped with the necessary location-specific human capital, they may not complete their studies in such localities.

Besides recruitment of the pre-service teachers based on their place of residence, in Malawi applicants' pre-requisite qualification is also considered in order to enrol them. This study's findings suggest that the quality of the subject grades on a candidates' pre-requisite qualification (Malawi School Certificate of Education, MSCE, equivalent to an 'O' level) impact on the holder's decision to complete the primary teacher training. The pre-service teachers who score better grades in most subjects at MSCE do not complete the training as compared to those with average grades. The reason is that the pre-service teachers with better subject grades usually apply for other university programmes and when selected they eventually leave primary teacher training. Despite the proposition that the pre-service teachers with better grades are prone to leaving teacher training, it is also evident that some with better grades complete their teacher education course. They finish the training because they have a keen interest in teaching, hence they become committed to continue their training. However, Rots, Aelterman, Vlerick and Vermeulen (2007) have observed that one's commitment to teaching depends on what attracts a candidate to join the teaching profession. Therefore, a pre-service teacher with better grades on the pre-requisite certificate may also not leave teacher training for another job because they may have a keen interest in a teaching career.

Although the pre-service teachers may have an interest in a teaching career, their performance in the entrance test also matters. This study's findings indicate that pre-service teachers' performance in the entrance test is related to their likelihood to remain in teacher training. In addition, both male and female pre-service teachers considered the enrolment criteria using entrance test scores as having an impact on their completion of the training. However, the findings further indicate that selecting candidates who score high marks in the entrance test does not guarantee that they will stay in their training. There are still

instances of either high or low performing pre-service teachers respectively either leaving or completing their training course. Additionally, even if some pre-service teachers score highly in an entrance test and can enrol for other professional courses, they do not withdraw because of the interest they have in the teaching profession. Agreeing with this study's findings, Feng (2005), in a research study conducted in Florida, concluded that there is some evidence that more talented teachers (measured by college entrance exam scores) are more likely to leave teaching in public schools.

Although the pre-service teachers may achieve the required performance in the entrance test, their induction becomes paramount. In this study, the findings indicated that the induction of the pre-service teachers at the beginning of their training programme contributes to their retention. Furthermore, a higher proportion of female compared to male pre-service teachers perceived the induction initiative as related to their completion of teacher training. Additionally, the induction that pre-service teachers receive at the beginning of their training contributes to their human capital in the teaching profession (Kavenuke, 2013). However, although human capital theory emphasises the acquisition of knowledge and skills and occupational choice, the induction that the pre-service teachers receive may not always equip them with the right human capital, hence some of them will still withdraw from the training. Those pre-service teachers that miss the induction lack the relevant knowledge and skills for primary teacher education, therefore some of them withdraw. However, those that miss the induction still excel through the programme. Since each teacher training college develops its induction content, exploring specific aspects of the induction would be worthwhile. Ingersoll and Perda (2008) have stressed the relationship between induction and pre-service teachers' retention in a related study conducted in the United States. The study established that while induction makes a difference in terms of retention, it depends on how much of it one receives. Beginning teachers who receive comprehensive induction packages have much higher retention levels than those who receive less support. The challenge in Ingersoll and Perda's (2008) study is what constitutes an appropriate level of

induction. Since various teacher training colleges in Malawi conduct induction in their own way, it would be useful to reflect on which colleges experience high retention rates and what constitutes the induction content in such colleges.

5.5. Factors influencing pre-service teachers' completion of training

Given that pre-service teachers' induction is related to their retention, this study also explored the importance of other factors that influence their stay in training, including: resource availability; faculty support; a clear professional career path; community, peer, and parental support; provision of an upkeep allowance; and mentoring.

In this regard, a high proportion of participants indicated that the availability of teaching and learning resources is important factor in pre-service teachers' stay in training. However, a few of them reported that such resources do not influence pre-service teachers' completion rates. Therefore, this implies that investing in teaching and learning resources contributes quite significantly towards pre-service teachers' likelihood to stay in training. Also, this development agrees with the human capital theory which, according to Olaniya and Okemakinde (2008), assumes that education improves workers' productivity and efficiency by increasing human economic capacity. In this context, the availability of such resources enables the pre-service teachers to become productive throughout their teaching practice period and eventually finish their training. However, not every pre-service teacher becomes productive as a result of the availability of teaching resources. Some do not acquire the relevant human capital due to the availability of the teaching and learning resources. In a related study, Nyenwe (2012) has established that teachers' acquisition of more human capital also increases their productivity and output. In addition, increasing the number of teaching and learning resources contributes towards students' learning outcomes. Also, the pre-service teachers enhance their learning outcomes as they interact and use the teaching resources. Since they are on training, they enrich their human capital, particularly regarding how to effectively teach their students using appropriate resources. However, it is not in all cases

whereby increasing the teaching and learning resources, results in pre-service teachers increasing their productivity and output too. Some of them do not demonstrate acquisition of the relevant human capital that might increase their productivity and output.

Apart from the availability of teaching resources being an important factor related to pre-service teachers' stay in training, in this study, a high proportion of the participants also reported that the support from faculty, peers and parents is an important influence on pre-service teachers' completion rates. The faculty provides them with professional advice and guidance relating to teaching practice in primary schools. Also, the pre-service teachers encourage one another regarding how to prepare better lesson plans as well as making and using locally available teaching and learning materials. Their parents also provide them with material and financial support to enhance their upkeep in rural teaching practice schools. Parents also provide moral support that eventually enables them to stay in training. Consistent with this argument, schools often aim to support teachers' human capital through opportunities for professional development (Baker-Doyle & Yoon, 2010; Kilburn & Karoly, 2008; Milanowski, Heneman, & Kimball, 2011, as cited in Daly, Chrispeels, Dermerstioen, & Moolenaar, 2011). This arrangement increases student commitment, since the support provided by the faculty, peers and their parents contribute to their human capital. In keeping with human capital theory, the support provided by faculty, peers and parents contributes towards investment in human capital which eventually enables the pre-service teachers to be productive in the classroom. However, investment in pre-service teachers' human capital is not only achieved through support from the above sources.

Besides the importance of faculty, peer and parental support, a high proportion of the participants reported that the availability of a clear professional career path (an arrangement whereby teachers progress through an established path) is important in influencing pre-service teachers to finish their training. Presumably, this factor registers an important influence because primary school teachers in Malawi start their career at certificate level and some improve their

educational qualifications up to diploma and degree levels. Many teachers have the opportunity to achieve higher qualifications. The Ministry of Education offers paid study leave and sponsorship to those undergoing further training. Since non-teaching professions have very limited equivalent opportunities, those pre-service teachers who complete their initial teacher training enjoy further training opportunities. As a result, teachers who receive career promotions after some years of service receive higher salaries commensurate with their qualifications. Consistent with this assertion, Zwick (2009) argues that human capital theory maintains that earnings increase with tenure and that productivity increases in line with further training efforts. Similarly, in New Zealand, the Department of Labour (2009) has observed that the prospect of promotion encourages workers to remain in their jobs and invest in specific human capital relevant to their jobs. However, since the availability of a clear professional career path influences pre-service teachers' retention, not everybody who finishes primary teacher training aspires to continue schooling to attain higher educational qualifications. The reason is that some of them have poor pre-requisite qualifications that make them ineligible for further studies.

Besides the importance of a clear professional career path, a high proportion of the participants reported that the payment of upkeep allowances to pre-service teachers influences them to complete their training. The upkeep allowance enables them to buy necessities, some of which are relevant to their professional practice. The allowance also allows them to purchase other items for their personal use. Since some pre-service teachers come from impoverished families, they depend on the allowances for their upkeep. However, the allowance is not sufficient, hence, other pre-service teachers do not rely on it for them to complete their teacher training. In a similar study conducted in Ghana, Cobbold (2006) established that the introduction of a district financial sponsorship scheme attracted teacher education candidates for rural teaching appointments. Cobbold concluded that a maintenance allowance to teacher trainees under the sponsorship scheme was not the only factor encouraging retention in rural communities. There was a need to put in place other policies to

complement retention efforts. Similarly, although this study found that paying upkeep allowances to pre-service teachers was important for their retention, some of them withdraw from the training programme despite receiving such allowances. In the context of human capital theory, education expenditures are a form of investment, which augment individual human capital leading to greater output for a given society and enhanced earnings for the worker. Hence, the upkeep allowance empowers pre-service teachers to become productive and such outputs benefit society. However, not all the pre-service teachers demonstrate the acquisition of relevant human capital that facilitates their classroom productivity after being paid an upkeep allowance, as some of them just use the allowance and eventually withdraw from the training programme.

5.6. Impact of recruitment procedures on pre-service teachers' retention

Besides upkeep allowances being related to pre-service teachers' retention, in this study the participants reported the extent of the impact of the recruitment procedures on pre-service teachers' stay in training. Determining the impact was necessary as the recruitment procedures are an essential aspect of the teacher training programme. In this regard, a higher proportion of the participants reported that the recruitment procedures have an impact on pre-service teachers' completion of their training, while a very low proportion of them reported the contrary. However, there were some gender differences regarding their perceptions; namely, more females than males indicated that the recruitment procedures have an impact on pre-service teachers' retention. The gender gap in perception might be a result of how each of the procedures relates to gender. Guarinio, Santibanez and Daley (2006) have confirmed this idea in a US-based research study. The research, based on the economic labour market theory of supply and demand, found that teacher recruitment and retention have an impact on the overall job market for teachers. Furthermore, Guarinio, Santibanez and Daley (2006) have emphasised that recruitment and retention policies have a direct bearing on the ability to fill the desired number of teaching positions. They concluded that policies on recruitment and retention together with current labour market conditions have a direct impact on the decisions of

teachers or prospective teachers to stay in teacher training or enter the teaching profession.

However, the research by Guarinio, Santibanez and Daley (2006) does not clearly articulate how recruitment impacts retention. Also, in the context of this study, how do recruitment procedures contribute to pre-service teachers' human capital? Perhaps the recruitment procedures are aimed at discovering already existing human capital in pre-service teachers, which might be useful for them to complete their training successfully. In this regard, Daley (2006) argues that as new employees are recruited and brought into organisations, they must be properly trained to do their jobs. This idea chimes with human capital theory, as it emphasises that the acquisition of knowledge and skills which form part of human capital, facilitates productivity in the workplace (Hollenbeck & Jamieson, 2015). However, even if some new employees are trained, they do not perform satisfactorily, hence, their productivity decreases (Hollenbeck & Jamieson, 2015). In the case of some people who have fulfilled the recruitment criteria for teacher training, despite having teacher training human capital, they do not perform well in their studies and sometimes decide to withdraw from the training.

In Malawi, pre-service teachers serve in rural areas upon graduation. However, this rural-based deployment aspect is discriminatory and impinges on their right to access those social services that prevail in urban settings. Because of this recruitment policy, some pre-service teachers opt to withdraw. The findings of this study are consistent with observations in Kenya by Aloo, Simatwa, and Nyang'ori (2011), whose research was framed by the discrepancy model described by McEnroe (2014). The model postulates that school-based teacher recruitment policy can be used to ensure equitable distribution of teachers, efficiency in the hiring of teachers and their retention in public secondary schools. Although Aloo, Simatwa, and Nyang'ori (2011) investigated high school teacher retention, the study findings were applicable in the Malawian context because matters affecting teachers in the Southern African region are common (Nel & Müller, 2010). In addition, Aloo, Simatwa, and Nyang'ori (2011) concluded that the advent of the school-based teacher recruitment policy in

public schools in Kenya's Nyando District led to a rise in the retention rate, from 70% in 2002 to 75% in 2007, with a fluctuation in 2006, which was a remarkable impact.

On the other hand, the retention of pre-service teachers might not exclusively be affected by the recruitment procedures. According to Kimball (2011), as part of human capital investment strategies, college principals must consider school improvement strategies in recruiting, selecting, developing and retaining effective teachers. Therefore, recruitment procedures need to focus on identifying prospective pre-service teachers who have the relevant human capital to complete and succeed in their primary teacher training.

5.7. Influence of mentoring on pre-service teacher retention

Given the impact of recruitment procedures on the retention of pre-service teachers, this section discusses the influence of mentoring on the same issue. While a higher proportion of the participants reported that mentoring is important in influencing pre-service teachers to finish their training, a low proportion of them reported contrary opinions. In this regard, a mentoring component during the teaching practice year complements the training of primary school teachers in Malawi. According to Santora, Mason and Sheahan (2013), mentoring is an aspect of professional education and career training in which a senior and experienced figure provides professional guidance to a junior person in a collaborative and personal relationship. In Malawi, mentors are selected from long-serving and experienced primary school teachers, particularly from the teaching practice schools. The assumption is that such a cadre of teachers possess an appropriate human capital that can be inculcated in the pre-service teachers through professional interaction during the entire teaching practice period. The mentoring practices aimed at the professional growth of the pre-service teachers and forming part of their human capital formation (Fapohunda, 2011), take different forms. While this study's findings indicate that the mentoring of the pre-service teachers has a positive influence on their teacher training

completion rates, the nature, quality and comprehensiveness of the mentoring programme might have a significant impact.

On this note, the participants indicated that mentoring influences pre-service teacher retention through the sharing of knowledge and skills from the mentor to the pre-service teachers, including classroom teaching and learning practices. In a study of German beginning mathematics teachers, Richter, Kunter, Lüdtke, Klusmann, Anders and Baumert (2013), assert that mentoring affects their professional development. However, it is not in every context that mentoring can affect teachers' development, whether in a positive or negative way. Regarding the positive effect of mentoring on teachers' professional development, in Malawi, as pre-service teachers acquire the skills of lesson planning, class management, teaching and learning, as part of their mentors' professional support, their human capital base is enriched. Hence, they become well equipped and empowered to handle classes on their own and, eventually, feel encouraged to complete their teacher training. The sharing of skills also includes providing relevant advice to trainees on professional skills, especially those they do not obtain during the college-based phase. Furthermore, the skills, values and attitudes gained are shared between pre-service teachers and even with qualified teachers, thereby the desire to finish their teaching practice is enhanced.

However, gaining such skills from a mentor might not always influence retention. The reason is that not all mentors share such skills with their pre-service teachers, perhaps due to attitude problems or they lack the appropriate human capital to impart to the pre-service teachers. Similarly, some mentees do not take heed of their mentors' advice, hence they fail to realise the relevant human capital that would help them succeed. In this context, since human capital theory emphasises the need for policy makers to allocate significant resources as part of an investment in education (Almendarez, 2001), mentoring needs to be well resourced so that it benefits pre-service teachers through the acquisition of knowledge and skills from mentors. However, other necessities in education

practice may prevent adequate resourcing for mentoring, thereby reducing the productivity of both the mentor and pre-service teachers.

Furthermore, the findings of this study are consistent with those of Willis (2014) who researched in a small rural school in Florida. Willis found that 95% of beginning teachers who participate in mentoring activities during their first years, remain in teaching after three years. Similarly, in a study undertaken in New York City, Rockoff (2008) identified that retention within a school is higher when a mentor has previous experience working in that school, suggesting that an important part of mentoring may be the provision of school-specific knowledge.

Besides sharing of skills from the mentor, the findings of this study indicated that the mentors' guidance and counselling sessions influence pre-service teachers to complete their teacher training. The mentors provide advisory services to the pre-service teachers about how they ought to relate with one another, with community members, as well as with their academic work. Some of pre-service teachers' experiences are disappointing. For instance, they receive their upkeep allowances late, resulting in financial problems, while also staying in places far away from their relations who might support them. Such situations result in some of them withdrawing from their training. In such cases, mentors guide and counsel them to lessen their worries, and in the process influence them to complete their instruction. However, there is a need to establish the extent to which guidance and counselling influences retention since mentors guide and counsel their pre-service teachers differently. There is no standardised way of guiding and counselling pre-service teachers, thus each mentor provides the service in their own way. Apparently, some pre-service teachers receive valuable guidance and counselling, yet some do not. On this issue, Hooley and Dodd (2015) argue that although career guidance is primarily concerned with an individual, it also offers major social and economic benefits. In this regard, their argument corroborates human capital theory, the latter postulating that the acquisition of knowledge and skills increases individuals' productivity, which in turn results in economic benefits. Hence, through mentors' guidance and counselling, pre-service teachers are equipped with relevant knowledge and

skills as part of human capital, the latter being necessary for their productivity and future economic gains.

5.7.1. Usefulness of mentoring for pre-service teachers' retention

Given the necessity of guidance and counselling as part of mentoring, the task of mentoring pre-service teachers also involves other practices. The practices include the mentors observing pre-service teachers' lessons and vice versa, completing a SEJ, pre-service teachers' observation of each other's lessons, convening professional meetings and mentor and head teacher's rating of their SEJ entries.

Given this information, in this study the participants reported that mentoring is a useful practice for ensuring pre-service teachers' stay in their training and professional growth. However, the usefulness of aspects of mentoring varies significantly. For instance, regarding the mentor's observation of the pre-service teachers' lessons, the participants reported that the practice is useful to influence retention, although a few participants reported contrasting views. In this respect, Adamson, Clausen-Grace, Eames, Einarson, Goff and Wooten (2008) argue that if mentees have concerns about carrying out their lessons, mentors might offer to model the lesson first, and that alone becomes very useful. This practice is possible because when the mentors observe pre-service teachers' lessons, they point out areas that require improvement. While some pre-service teachers appreciate the mentor's advice after observing their lessons, and decide to finish their teacher training, some choose to withdraw. It is the latter group that the mentor needs to nurture to complete their training. On this note, since human capital theory stresses the significance of education and training to increase the human capital of individuals (Tan, 2014), mentoring pre-service teachers equips them with the relevant human capital that helps influence them to be productive, hence manifesting its usefulness in relation to pre-service teachers' retention. However, although the theory stresses the provision of education and training, not all pre-service teachers acquire the knowledge and skills imparted through the practice of a mentor observing pre-service teachers'

lessons. In this case, such a mentoring practice turns out not to be useful to them.

On the other hand, from the gender perspective, a higher proportion of the female participants than males perceive a mentor observing pre-service teachers' lessons to be useful for retention purposes. However, very low proportions of them consider the practice not useful. Perhaps this contrast could be associated with a given mentor's gender. Therefore, between male and female mentors, there is a need to ascertain whose mentoring influences pre-service teachers to remain in training.

Besides this situation, a high proportion of the participants reported that observing a mentor's lesson is a useful practice in terms of ensuring pre-service teachers' retention. It is useful for them to observe their mentor's lesson to learn some best practices. Once the pre-service teachers observe a mentor's lesson, they learn a lot and feel encouraged, since the mentor's lesson provides a benchmark for teaching and learning process. The encouragement makes them remain in training and imitate the mentor's style of instruction. Additionally, some pre-service teachers feel incapable of teaching the way the mentor does and, therefore, perceive teaching as a demanding task, hence they feel disgruntled and eventually withdraw. In a related study on the early field experiences of US pre-service teachers, Anderson, Barksdale and Hite (2005) argued that cooperating teachers serve as models to guide prospective teachers in the application of theory and instructional approaches. The goal of such apprenticeship experiences is for pre-service teachers to develop and practise their pedagogical skills through close observation of the cooperating partner. However, do all the cooperating teachers really serve as models? Perhaps there might be some cooperating teachers who fail to model good lessons for the benefit of pre-service teachers. Also, the extent to which model lessons offered by the mentor contribute to pre-service teachers' human capital is what matters most. In this context, and according to human capital theory, when pre-service teachers observe their mentor's lesson, they are supposed to gain knowledge

and skills as part of their human capital, which is necessary for their own productivity in the classroom setting.

From a gender perspective, regarding pre-service teachers' observation of the mentor's lesson, more females than males considered the practice useful in relation to influencing pre-service teachers to complete their training. It would be worthwhile to establish why more females than males consider the practice helpful for retention purposes. On this note, in previous research at Midwestern Research 1 University, Rose (2005) has indicated that graduate students' perceptions on the ideal mentor are somewhat influenced by socio-cultural factors while individual differences also play a larger role.

Apart from the aspect of the pre-service teachers observing their mentor's lessons, in this study a high proportion of the participants indicated that the pre-service teachers' maintenance of a SEJ is useful for their retention. However, a low proportion of them considered the practice not useful. The pre-service teachers make professional entries in the journal on a weekly basis throughout the teaching practice period. They get used to this practice, and that influences them to finish their teacher training. Also, as the pre-service teachers make professional entries in their SEJ, they amass valuable human capital about their work. In this regard, given that human capital theory emphasises education as a determinant of the marginal productivity of labour, the pre-service teachers' practice of maintaining a journal equips them with the relevant human capital necessary for their productivity once they qualify as teachers. This situation gives them the impetus to successfully complete their studies. On another note, some pre-service teachers claim that a SEJ influences some of them to withdraw because it is a demanding task, hence they decide to join less demanding training professions. Therefore, to some extent, the journal work also negatively affects retention. Confirming this assertion, a study by Easthope and Easthope (2010) in Tasmania has discerned that high workload is greatest among teachers in training, thereby some choose to leave teaching in preference for a lighter workload. However, not every teacher decides to leave due to this reason as some have a passion to work as teachers.

Besides indicating the usefulness of maintaining a SEJ, a high percentage of participants reported that observing each other's lessons is useful for their completion of training, with fewer participants reporting that the practice is not useful. The practice provides encouragement to others as to how best to prepare and deliver lessons to learners while also enabling them to share experiences and enjoy mutual advice on how best to improve. Ultimately, each one of them feels encouraged and decides to complete their training. In this regard, Yiend, Weller and Kinchin (2014) have argued that formative peer observation is considered by many to be a powerful tool for providing feedback to teachers. However, the feedback may not only be to the teachers but also to the peers themselves. In addition, not every pre-service teacher is flexible enough to have his or her lesson observed by a peer, but rather by a mentor. Having their shortfalls observed by a peer frustrates them, hence some decide to withdraw. Perhaps, with proper guidelines – particularly regarding what peers need to do and what not to do during lesson observation – pre-service teachers would feel encouraged to be observed by peers when teaching, hence their retention would be enhanced. As the pre-service teachers observe each other's lessons, they build human capital that makes them become efficient and productive in their work. This idea agrees with human capital theory, whereby the acquisition of knowledge and skills enables individuals to increase their productivity, in turn improving their economic gains (Marginson, 2015). However, it is not in all situations where observation of each other's lessons brings about increased productivity. The reason is that some pre-service teachers do not learn anything from the practice of their peers.

While peer lesson observation was considered useful for retention purposes, in this study a high proportion of participants reported that conducting and attending regular professional meetings is useful for the retention of pre-service teachers. This practice enables the pre-service teachers and their mentors to share pertinent and valuable information, skills and best practices that are relevant to their teaching practice. Also, such gatherings are instrumental for the improvement of teaching and learning practices. In addition, the pre-service

teachers gain confidence in teaching and learning processes during the teaching practice period. Furthermore, this aspect provides them with some encouragement to complete their teacher training. However, not all professional meetings benefit pre-service teachers in the same way. In some meetings, they do not discuss issues pertinent for improvement of their practice. In such instances, some pre-service teachers feel discouraged and withdraw to join professions deemed to provide adequate support through professional meetings. Therefore, determining the extent to which the holding of professional meetings helps retain pre-service teachers requires further investigation. Similarly, it would be worthwhile to determine the real professional issues discussed in such meetings that induce the pre-service teachers to complete their training. In a related study, Fresko and Nasser-Abu Alhija (2015) have argued that new teachers' learning communities conducted outside of school hours and characterised by the sharing of experiences, connect practice to theory and helps develop their professional identities. In this regard, the professional meetings that the pre-service teachers undertake, help them to shape the human capital necessary for their practice. On this note, Perna, Orosz, Gopaul, Jumakulov, Ashirbekov and Kishkentayeva (2014) argue that professional meetings of this nature promote human capital development. However, such human capital development may not take place in all instances because, in this case, some pre-service teachers may not practise anything they discuss in such meetings.

From the gender perspective, the findings indicated very slight gender variances relating to the usefulness of professional meetings on pre-service teachers' completion of their training. On this note, Myung, Martinez and Nordstrum (2013) have argued that life experiences may account for gender differences in the acquisition of human capital. The overwhelming positive perception of the usefulness of professional meetings clearly shows that the issues discussed and shared in such gatherings are instrumental in pre-service teachers' vocational growth. These professional meetings also enhance human capital investment in pre-service teachers, in turn influencing them whether to complete their teacher training or not. Despite the occurrence of such meetings

as scheduled in the SEJ, several pre-service teachers withdraw, possibly due to their own personal or professional reasons. Also, the lack of uniformity on the issues discussed and shared at such meetings results in attrition. It is, therefore, possible that in some teaching practice schools, such meetings never discuss matters that influence pre-service teachers to complete their training.

Besides conducting professional meetings to enhance pre-service teachers' retention, a high proportion of the participants reported that the weekly rating of a SEJ by both the mentor and the head teacher, is a useful practice for ensuring pre-service teacher retention. The entries made by the pre-service teachers in the journal concern their experiences regarding teaching and learning in a week, and any other predetermined assignments. The ratings on such entries encourage them to continue with the good work done during the teaching practice period. However, some pre-service teachers do not complete their weekly entries on time, hence that affects their ratings. In turn, this situation affects their final assessment grades. The mentors and head teachers counsel those pre-service teachers who persistently receive poor ratings. However, some of those that persistently score poorly feel discouraged and eventually withdraw, while others complete their training. Regarding human capital theory, which refers to the stock of knowledge, skills, social and personality attributes embodied in the ability to perform labour in order to achieve economic value (Marginson, 2015), the SEJ ratings demonstrate the extent of human capital acquired by the pre-service teachers. The implication might be that higher ratings denote accumulation of more human capital that pre-service teachers might use to achieve productivity and eventually achieve economic gains. However, not all high ratings might suggest an accumulation of additional human capital.

From a gender perspective, regarding the usefulness of SEJs' weekly rating on pre-service teacher retention, more female participants than males considered the practice useful for retention purposes. Pitt, Rosenzweig and Hassan (2012) have substantiated this claim in that returns in human capital investments are higher for women than for men. Interestingly, more males than females consider the mentoring practice not useful in terms of pre-service

teachers' retention. The gender differences in perception, in this respect, also mean that there are differences in the human capital levels that the participants possess regarding the effect SEJ ratings have on pre-service teachers' retention. Perhaps there is a need to establish whether those who perceive the practice not useful are also prone to attrition. Certainly, not all those who find the practice useful would complete their training, since other factors are also in play.

5.8. Strategies for pre-service teacher retention

Given the usefulness of various mentoring practices, this section discusses some of the key strategies reported by research participants as essential for ensuring pre-service teachers' retention. Since the strategic management of human capital concerns the acquisition, development, performance management, and retention of top talent in schools (Odden & Kelly, 2008), this study found that the teacher training colleges put in place various strategies to retain pre-service teachers. While some strategies are common, others are college-specific, though some may not be formulated for retention purposes.

The findings indicated that the provision of upkeep allowances to cater for the incidental expenses of pre-service teachers has a significant bearing on retention. In most post-secondary public institutions in Malawi, including universities, such an allowance is provided, though the amount differs from one institution to another. While the payment of an upkeep allowance to pre-service teachers in teacher training colleges assists them to purchase stationery items, it also serves as a retention strategy. However, in universities, it is for the purchase of stationery only. Santoro and Allard (2008), through an Australian study, confirms that the provision of a government education maintenance allowance to pre-service teachers contributes to their retention. In Malawi, although pre-service teachers on teaching practice receive a higher amount than those who are yet to do the teaching practice, there are no significant differences in retention.

Besides the strategy of paying up-keep allowances, conducting induction/orientation sessions before the commencement of the training influences retention of pre-service teachers. This orientation covers many aspects including programme schedule, course requirements and mode of assessment during the two-year period. The reason is to inform them what primary teacher training entails and eventually what a primary teaching career involves. During the orientation, they sign legally-binding bond documents accepting that they will teach in rural primary schools for not less than five years immediately after finishing their training. However, in the Zimbabwean context, Chimbari et al. (2008) view the strategy of bonding staff to retain them as unpopular and de facto resulting in staff desertion. In Malawi, committed candidates for teacher training sign the bonds and get enrolled while those that are not committed leave before the training programme's commencement. According to Ingersoll and Strong (2011), orientation is essential because teaching is complex, although, pre-employment teacher preparation is rarely sufficient to provide all of the knowledge and skills necessary for successful teaching. However, since the orientation of pre-service teachers equips them with the necessary human capital regarding the profession, its effectiveness is unclear as orientation's content is not uniform across teacher training institutions. As a result, pre-service teachers are oriented either adequately or inadequately on the training programme. Similarly, despite the orientation, some pre-service teachers withdraw from the training programme. This situation raises further questions as to whether orientation contributes to retention. However, Ingersoll and Strong (2011) contend that of all the studies on commitment and retention, most studies show that beginning teachers who participate in some induction have higher levels of job satisfaction, dedication and retention.

To complement induction efforts as a retention strategy, the training institutions also use role modelling as another strategy to influence pre-service teachers' retention. In this regard, the teacher training colleges invite former and current teachers who hold influential positions, in either the public or private education sector. They come on campus occasionally, especially during the

orientation week and act as role models. They provide a teaching career talk to pre-service teachers while also providing some guidance to them, particularly in relation to relevant information about the profession, its benefits, prospects and expectations. However, the extent to which role modelling helps to retain pre-service teachers requires further investigation. This idea of role modelling as a retention strategy is consistent with observations by Howard (2010) in a New Zealand-based study, where it was found that role modelling encourages young people to undergo teacher training, especially when they see teachers from their own communities. In the case of primary teacher training in Malawi, the pre-service teachers are recruited from their localities and deployed for teaching practice in the same localities. As a result, they become role models for others. However, even where teachers are recruited from a locality, some people do not enrol for teacher training. Similarly, some of those who enrol for teacher training, do not stay in teacher training. They withdraw and join other professions.

In addition, given that human capital theory stresses that individuals' acquisition of knowledge and skills facilitates occupational choice (Crocker, 2006), the role modelling strategy helps pre-service teachers to make informed decisions regarding whether to stay in teacher training. In this context, Bosma, Hessels, Schutjens, Van Praag, and Verheul (2012) argue that role models may have a profound influence on career decisions. Furthermore, Bosma et al. (2012) suggest that individuals are attracted to role models from whom they can learn certain abilities and skills. Hence, the role modelling strategy helps pre-service teachers to become attracted to the teaching profession, and later decide to stay in teacher training. However, this strategy may not work for all individuals, because some of them are already attracted to other professions. In fact, they may have an innate passion for an occupation other than teaching.

Besides the role modelling strategy, the study indicated that the policy of establishing partnership initiatives between teaching practice schools and the surrounding community also enhances pre-service teacher retention. The pre-service teachers and the community initiate and implement unique aspects of a partnership involving the socio-economic and professional well-being of both

parties. In this study, it was noted that the partnership efforts assist the pre-service teachers to complete their teacher training. The reason is that some communities mobilise essential provisions such as teaching and learning materials and foodstuffs for those pre-service teachers serving in their localities. This gesture becomes essential, especially when payment of upkeep allowances is delayed as is usually the case. The partnership also includes holding joint open days to undertake the school and cultural exhibitions necessary for children's education in their respective areas. However, despite this comprehensive partnership between teaching practice schools and the communities they serve, some pre-service teachers withdraw from the programme. It may be the case that partnerships in different contexts also influence retention differently. In support of this argument, in a webinar on parent-teacher relationships hosted by the Harvard Family Research Project (2010), it transpired that strong parent-teacher relationships are invaluable. The reason is that these relationships contribute to a positive school climate, family engagement in student learning, improved student performance, and the retention of high-quality teachers. However, in some schools, the partnership mechanism fails to retain the pre-service teachers, because some members of the community do not appreciate the need to support pre-service teachers.

Additionally, given that human capital theory emphasises how education increases workers' productivity and efficiency by increasing the level of economically productive human capability (Olaniyan & Okemakinde, 2008), the partnership between schools and the community reinforces the productivity of pre-service teachers. Where the community assists schools with locally available teaching and learning resources, pre-service teachers teach the learners effectively and they feel encouraged, hence they stay in teacher training until they finish. However, this productivity may not always be evident in all the pre-service teachers because some of them are just indifferent to any initiatives.

Concerning one way of reinforcing school-community partnerships, in this study it was reported that another retention strategy involves re-admitting pre-service teachers who, in one way or another, failed to continue with their teacher

training. In Malawi, those who withdraw at some point request to have their places reserved and are readmitted in the following year. In this case, although at the time of withdrawing it would appear as if attrition impacts negatively on pre-service teacher education, in the long term when those who withdrew are readmitted, retention is achieved. However, interestingly, from my experience, out of the readmitted pre-service teachers, some still withdraw. Therefore, there is a need to investigate the extent to which readmission helps to retain pre-service teachers. From another perspective, there is a wastage of resources when people withdraw after readmission since the trend poses economic challenges.

Additionally, and drawing on human capital theory, investing in the education of individuals produces an educated population which is knowledgeable, skilful and productive in terms of a nation's economic development (Crocker, 2006). In this regard, the strategy of readmitting pre-service teachers in a teacher training programme ensures that they acquire the relevant human capital necessary for their productivity and future economic gains. Also, once those pre-service teachers who previously withdrew are readmitted back into teacher training, they become committed and complete their training. However, this retention strategy may not be achieved in all contexts, such as when the factors that led them to withdraw, keep on impacting on them, thereby they may not continue with their training.

While withdrawing from the teacher training programme has negative implications for retention, it is necessary for colleges to adopt certain retention strategies. For this reason, Berry (2009) argues that to create a coherent system of human capital, school system strategies – particularly those that influence the retention of pre-service teachers – are highly recommended. Therefore, it becomes paramount for education authorities to invest quite substantially in pre-service teachers' human capital through programme orientation, school-community partnership agreements and role modelling to ensure their retention. Finally, investing appropriate human capital in pre-service teachers has long-

term benefits in terms of educating the generation that will later contribute towards the effective drive for the nation's economic prosperity.

5.9. Chapter conclusion

This chapter discussed the various reasons that pre-service teachers have for joining the teaching profession. For instance, they choose to become primary school teachers mainly because of four reasons: the influence of their teachers; the desire to teach children; opportunities for further education that exist within the teaching career; and the love of the subject matter. On the other hand, the lack of other career options and parental influence are not important in choosing the teaching profession. In this regard, there is a clear connection between pre-service teachers' reasons for joining the teaching profession and human capital theory. This theory postulates that human capital pertains to the acquisition of knowledge, and skills necessary for one's productivity, and an ability to make occupational choices (Almendarez, 2001; Olaniyan & Okemakinde, 2008). Hence, the pre-service teachers' reasons for choosing the profession are an indication of their human capital investment.

Besides these reasons, the age of pre-service teachers is related to their likelihood to complete the training. In this context, either some younger or older pre-service teachers can either stay or withdraw from the training. Presumably, the older pre-service teachers are mature enough to make informed decisions, including the need to complete their teacher training. Also, some younger pre-service teachers may withdraw from their training because oftentimes they are undecided, hence they may continue to search for alternative education opportunities. However, even their older counterparts may also decide to withdraw and look for other opportunities, and some young pre-service teachers may equally persist in their training compared to their older counterparts.

Besides age, pre-service teachers' interest in the teaching profession is related to the completion of their training. In this regard, interested pre-service teachers are more likely to complete their training than those who are uninterested. However, one's interest would not only be in one job, since interest

in a job is dynamic (Porter & Bear, 2014) and because an individual can initially have a keen interest to become a primary school teacher, but later develop interest in another profession.

Given this information, the recruitment of pre-service teachers based on their place of residence is related to their likelihood to complete their training. However, a few participants held a contrary view. Since pre-service teachers in Malawi are recruited mainly from rural areas and undertake their teaching practice in the same locations, they become acclimatised to such environments while they complete their teacher training. On this note, Dai, Sindelar, Denslow, Dewey and Rosenberg (2007) have stated that candidates who grow up in a specific high-need area often accumulate more location-specific human capital about the area, hence offering an advantage of adapting to the community and connecting well with the students there. In view of human capital theory which emphasises the acquisition of knowledge and skills necessary for one's productivity in the workplace (Crocker, 2006), the possession of location-specific human capital is paramount as it assists workers to cope with their environment.

In addition to residence as a recruitment factor, the chapter discussed that the quality of the subject grades on a candidates' pre-requisite qualification impact on the holder's decision to complete the training. Some of the pre-service teachers who score better grades in most subjects at MSCE do not complete primary teacher education as compared to those with average grades on their pre-requisite qualification.

Aside from qualification, both male and female pre-service teachers considered the enrolment criteria of using entrance test scores as related to their completion of the training. However, selecting candidates that score high marks in the entrance test does not guarantee that they will complete. There are still instances of either high or low performing pre-service teachers leaving or completing their training course. Additionally, even if some pre-service teachers score highly in an entrance test and become capable of being enrolled in other

professional courses, they do not withdraw because of their interest in the teaching profession.

Furthermore, the availability of teaching and learning resources influences pre-service teachers to complete their training. However, a few participants perceived no such influence. This implies that investing in teaching and learning resources contributes quite significantly towards pre-service teachers' likelihood to complete their training. Also, this development relates to human capital theory which, according to Olaniya and Okemakinde (2008), assumes that education improves workers' productivity and efficiency by increasing the humans' economic capabilities.

Also, support from faculty, peers and parents influences pre-service teachers to complete their teacher training. The faculty provides them with professional advice and guidance related to teaching practice in primary schools. In addition, pre-service teachers encourage one another in terms of how to prepare better lesson plans, including using locally available teaching and learning materials. Their parents, too, provide them with the moral, material and financial support to enhance their upkeep in rural teaching practice schools. Consistent with this argument, schools often aim to support teachers' human capital through opportunities for professional development

In addition to the importance of faculty, peer and parental support, the proposition that the availability of a clear professional career path and the timely payment of upkeep allowances to pre-service teachers encourages them to finish their training. In the context of human capital theory, education expenditures are a form of investment that augment individual human capital, leading to greater output for a given society and enhanced earnings for the worker. Hence, the upkeep allowance empowers pre-service teachers to become productive and produce outputs that benefit society.

Mentoring enhances pre-service teacher retention through the sharing of skills, guidance and counselling. On this note, Hooley and Dodd (2015) argue that although career guidance is primarily concerned with an individual, it also

offers major social and economic benefits. This idea corroborates human capital theory because through mentors' guidance and counselling, pre-service teachers are equipped with relevant knowledge and skills as part of human capital, which is necessary for their productivity and future economic gains.

In addition, other mentoring practices include mentors observing pre-service teachers' lessons and vice versa, completing a SEJ, pre-service teachers' observing each other's lessons, convening professional meetings, and mentors and head teachers' rating of SEJ entries. However, the usefulness of mentoring varies significantly. On this note, since human capital theory stresses the significance of education and training in relation to increasing individuals' human capital (Tan, 2014), mentoring pre-service teachers equips them with the relevant human capital that influences their productivity, hence manifesting its usefulness in terms of pre-service teachers' retention.

Furthermore, strategies that can retain pre-service teachers include provision of upkeep allowances, induction/orientation sessions before training commences, role modelling, establishing partnership initiatives between the teaching practice schools and the surrounding community, and re-admitting pre-service teachers who have previously withdrawn.

Chapter 6: Conclusions and Recommendations

6.1. Introduction

Following the discussion in the preceding chapter, this chapter draws conclusions from the study's findings. The conclusions are derived from an examination of the various factors that influence pre-service teachers in Malawi to complete their teacher training. This chapter also outlines some recommendations necessary for the improvement of professional practice in primary teacher education in Malawi. Furthermore, this chapter highlights some aspects of pre-service teachers' retention that require further research.

The primary focus of this study was to examine the factors that influence the retention of pre-service primary school teachers in Malawi. The following secondary questions were explored:

1. To what extent does age and gender affect pre-service primary teachers' intention to complete their training in Malawi?
2. How can recruitment procedures and mentoring practices influence the retention of pre-service primary teachers in Malawi?
3. What strategies do primary teacher education institutions follow to promote retention in Malawi?

6.2. Significance of the study

This study was significant due to the following reasons:

- It provided insights for improving the primary teacher training programme's curriculum to promote best practice.
- The results have the potential to influence professional practice in the Malawian Ministry of Education, Science and Technology.

6.3. Conclusions of this study

The discussion of the study's findings detailed in the previous chapter lead to the following conclusions.

6.3.1. Pre-service teachers' reasons for choosing the teaching profession

Hord and Tobia (2015) argue that individuals choose the teaching profession for different reasons. Similarly, this study concludes that pre-service teachers in Malawi decide on the profession because of their desire to teach children, although Scheffler (2014) believes that teaching is not just a matter of shaping the young. The other reason is that the Ministry of Education, Science and Technology in Malawi provides opportunities for further education to serving teachers to facilitate their future career advancement. However, Houchins, Shippen, Schwab and Ansely (2016) argue that in Georgia, compensation and career advancement are less important reasons for choosing to teach. In Malawi, pre-service teachers also choose the profession because of the influence of their former teachers and the love of the subject matter offered in schools. It is also concluded that pre-service teachers do not choose primary school teacher training because of parental influence or the lack of alternative employment. Through this study, it is however clear that pre-service teachers' reasons for choosing the teaching profession have an impact on their intention to complete training.

In addition, it is also concluded that pre-service teachers in Malawi have knowledge of the nature of the teaching profession. This understanding is apparent in the various reasons they mention for choosing the teaching profession. On this note, Tan (2014) indicates that the pre-service teachers' prior knowledge reflects the human capital they already have regarding their profession, therefore, their training improves that same capital in the teaching profession.

6.3.2. Pre-service teachers' primary dimensions of diversity and retention

Apart from providing human capital to pre-service teachers, Zaballero and Kim (2014) suggest that their age and gender, as some of the primary dimensions of diversity, have a bearing on pre-service teachers' retention. In this study, it is also concluded that these primary dimensions of diversity significantly impact on pre-service teachers' completion of teacher training in Malawi. For instance, regarding gender, male pre-service teachers are more likely to complete their training than their female counterparts. The reason is that there appear to be fewer factors that influence them to withdraw. Female pre-service teachers withdraw from the training due to additional factors such as maternity .

Regarding age, older pre-service teachers complete their teacher training more successfully than their younger counterparts. Older pre-service teachers have families that require support, hence, they are determined to finish their training to secure employment. Also, some younger pre-service teachers are not committed to completing their training because they envisage withdrawing and pursuing other training programmes. Therefore, this study concludes that in Malawi, different pre-service teachers' human capital and their heterogeneous demographic characteristics have a bearing on training. Hence, it is necessary to consider demographic characteristics during pre-service teachers' enrolment to ensure their retention. Similarly, Johnson, Schnatterly, and Hill (2012) argue that individuals' human capital characteristics encompass the skills and experiences they acquire over time.

6.3.3. Factors that influence pre-service teacher retention

Besides the influence of age and gender, this study also concludes that the following other practices influence the retention of pre-service teachers.

6.3.3.1. Induction

With regard to this study's findings, it is concluded that those pre-service teachers who receive an induction/orientation at the commencement of their

training are more likely to complete it. During training, they acquire more knowledge about the profession. In this regard, Cooper, Drake, and Green (2009) indicate that investing in induction programmes encourages skilled and satisfied teachers who are prepared to enter and stay in schools. However, even though some pre-service teachers receive induction, it does not help them to appreciate the profession better because some eventually withdraw.

6.3.3.2. Pre-service teachers' district of origin

Besides induction as a factor influencing retention, admitting the pre-service teachers based on their district of origin influences their retention. Pre-service teachers who come from the rural areas of Malawi are more likely to complete their training than those from urban settings. The former are accustomed to the environment and can cope more effectively with teaching practice placements in rural schools. However, Monk (2007) argues that attracting and retaining qualified teachers in rural schools is a problem. Similarly, in Malawi, some pre-service teachers do not finish their training, even if they are recruited from rural areas and deployed to those same areas for their teaching practice.

6.3.3.3. Availability of teaching and learning resources

Given that the location of teaching practice plays a role in the retention of pre-service teachers, this study's findings conclude that the availability of teaching and learning resources influences the retention of pre-service teachers in rural teaching practice schools. Those schools with adequate resources attract teachers, while inadequately resourced schools face staff shortages. However, even the schools that have adequate teaching and learning resources also experience the withdrawal of some pre-service teachers.

6.3.3.4. Regular payment of upkeep allowances

Apart from the availability of resources, this study's findings further conclude that pre-service teachers who receive their upkeep allowance regularly feel encouraged to stay attending the teaching practice schools, in other words

they are motivated to complete their training. On the other hand, those who usually receive their upkeep allowances late, feel disgruntled and eventually withdraw from the training programme. However, it is not the case that in all situations where upkeep allowances are paid in a regular and timely fashion that pre-service teachers stay in training. There are also some who withdraw despite getting their allowances on time.

6.3.3.5. Clear professional career path

Apart from the upkeep allowances, this study concludes that the availability of a clear professional career path for teachers motivates those in the pre-service stage to stay in the profession. In the case where professional career advancement is not possible, teachers choose to quit in preference for occupations that provide them with hope for future career advancement. However, even where there is a clear professional advancement path, some pre-service teachers withdraw from their training, in which case retention becomes a problem.

6.3.3.6. Support from faculty, peers, parents and community

The provision of a clear career path is related to the support that the pre-service teachers receive from faculty, peers, parents and the community. This study concludes that the support from the community, peers and relatives provide to the pre-service teachers contributes to their likelihood to complete their training. They encourage the pre-service teachers to show commitment to their training to complete it successfully. Kline, White and Lock (2013) confirms this insight by stating that for teachers to be successful, they need supportive environments. However, some pre-service teachers withdraw from the training programme even when they get support from their faculty, peers, parents, and the community. It is also worthwhile to establish the extent and the type of support that this group render to pre-service teachers and how that influences them to stay in training.

6.3.3.7. Interest in the teaching profession

The support that the pre-service teachers have from faculty, peers, parents, and the community works well if pre-service teachers themselves show an interest in receiving it. Regarding this study's findings, it is concluded that those pre-service teachers who have more interest in the teaching profession are more likely to complete their training than those with less engaged with the profession. In this regard, Eren (2012) corroborates this conclusion by indicating that prospective teachers' interest in teaching is significantly related to their career choice, satisfaction and professional plans. Hence, the interest that pre-service teachers have in the profession influences them to prefer it above others. In addition, they develop a passion for teaching and that drives them to complete their training, whereas pre-service teachers that lack such an interest feel discouraged and eventually withdraw. However, there are also situations in which pre-service teachers who show great interest in the profession still decide to withdraw from the training programme.

6.3.4. Mentoring and pre-service teacher retention

Given the factors that influence the retention of the pre-service teachers, Manuel and Hughes (2006) state that framing professional experiences within learning communities potentially supports pre-service teachers to work with their mentors in more collegial and reciprocal ways. For this reason, in Malawi, a mentoring component supports the primary teacher training programme. In this regard, and according to this study's findings, it is concluded that the mentoring of the pre-service teachers helps them to complete the training. Mentor practices such as the provision of teaching skills, guidance and counselling, and school experience journaling all help retention. Additionally, mentoring can also comprise a variety of practices that enhance pre-service teachers' professional growth as part of their human capital investment. These include mentors observing pre-service teachers' lessons, pre-service teachers observing a mentor's lesson, and peer lesson observations alongside conducting professional meetings, and a weekly rating of a School Experience Journal (SEJ) by a mentor

and head teacher. This study concludes that the mentoring practices detailed above significantly influence the retention of the pre-service teachers, although, the exact extent of their influence varies considerably and despite these interventions some pre-service teachers still withdraw from their training.

6.3.5. Strategies for promoting pre-service teacher retention

Given the discussion of the findings in the preceding chapter, this study concludes that certain strategies need to be put in place to ensure that the pre-service teachers complete their training. In this regard, Boyd, Terry and Trinidad (2013) contend that despite some challenges impacting on teacher retention in remote schools, some strategies promote their staying. Therefore, this study concludes that some strategies can promote pre-service teacher retention in the Malawian context.

For instance, inducting pre-service teachers makes them aware of what the teaching profession entails. They appreciate the benefits and prospects of becoming a teacher. Most importantly, the induction provided to the pre-service teachers enhances their human capital, which is necessary for their productivity during the training period. Eventually, the pre-service teachers get inspired to complete their training.

In addition to the induction, this study also concludes that role modelling is a useful strategy for retaining pre-service teachers. In this case, the mentors in the teaching practice schools are instrumental in providing valuable professional advice to pre-service teachers. They can demonstrate how to prepare and deliver meaningful lessons in the classroom and thus act as role models to the pre-service teachers.

Also, while the mentors act as role models within the school community, the establishment of school-community partnerships influences the retention of pre-service teachers. In this context, a friendly rapport emerges between the school teachers and the surrounding communities. Sometimes, the communities provide material resources to the school to help the pre-service teachers in their

teaching tasks. As a result, the pre-service teachers feel part of the community and this can have an impact on their desire to complete.

As the school and the community engage in a partnership, the strategy of readmitting those pre-service teachers who previously withdrew from their training enhances retention in primary teacher training. Such pre-service teachers become determined in their training and work towards its successful completion. Therefore, this study concludes that reserving places for the pre-service teachers who withdraw and later reapply in the following academic year helps to ensure their retention.

6.4. Human capital theory and retention

In this thesis, the conclusions are underpinned the principles of human capital theory, since they relate to pre-service teachers' acquisition of knowledge and skills that are necessary for their productivity in the schools (Olaniyan & Okemakinde, 2008). The various strategies for ensuring retention also relate to pre-service teachers' acquisition of knowledge and skills in teaching practice schools. In this regard, investing relevant human capital in pre-service teachers enables them to make informed occupational choices (Fernando & Fernando, 2014) and whether to complete their training or not. Additionally, Fernando and Fernando also argue that individuals equipped with relevant knowledge and skills make their own assessment of the potential benefits of choosing and staying in a profession. However, human capital theory has some limitations concerning pre-service teachers' retention because some of the knowledge and skills they acquire makes them become more indispensable yet simultaneously marketable in other jobs, hence, some withdraw to take up other positions. On this issue, Salman and Lindström (2013) state that investing greater human capital in employees makes them more attractive in the labour market, hence, encouraging attrition. However, not everyone who acquires more human capital leaves the workplace.

6.5. Contribution to knowledge

Given the conclusions drawn in this chapter, this study contributes to knowledge in several ways. The available literature is focused more on the attrition and retention of qualified teachers. However, a knowledge gap exists in terms of pre-service teachers' retention, particularly in the Malawian context. In addition, there has been little Malawi-focussed research on pre-service teachers' retention regarding age and gender, recruitment, and mentoring. Therefore, this study addressed the knowledge gap concerning the extent to which these aspects facilitate pre-service teachers' retention, hence, contributing to new knowledge.

In this regard, first, this study contributes new knowledge by determining the reasons that influence pre-service teachers to choose their profession, including the desire to work with children and acquire opportunities for future career advancement, thereby reflecting their innate human capital. Hence, this idea needs to be incorporated in a teacher education curricular and when assessing candidates for teacher training to ensure their retention.

Secondly, this study contributes new knowledge concerning pre-service teachers' retention with respect to their age and gender whereby older candidates, typically male, are more likely to remain in training than younger candidates, especially females. Hence, the enrolment of pre-service teachers needs to consider this aspect to maximise value for money in terms of training.

Thirdly, enrolling candidates who originate from rural localities, with a keen interest in the profession, who receive effective induction at the start of training and are paid their upkeep allowance in a timely manner, ensures their retention. In this regard, Teacher Educators and Educational Planners need to make use of this new knowledge to reduce attrition during training.

Fourthly, this study adds to the knowledge on the mentoring of pre-service teachers. It concludes that effective mentoring is a form of human capital investment, hence it should comprise several practices including journaling,

guidance, and the counselling of pre-service teachers. In this regard, well-mentored pre-service teachers feel motivated and remain in training.

Given these distinct areas on contribution to new knowledge, besides recruitment modalities and mentoring practices, the retention of pre-service teachers in Malawi is influenced by their induction, district of origin, timely payment of upkeep allowances, support and keen interest in the career. In which case, the pre-service teachers' age and gender play a significant role.

6.6. Recommendations for practice

Following this research study's findings and the preceding conclusions that form part of the dissertation's insights and knowledge contribution, this section outlines some recommendations to improve primary teacher training in Malawi, noting best practices for retaining pre-service teachers. Therefore, the following issues are recommended for implementation by the Malawi Ministry of Education and its teacher training institutions.

6.6.1. Introduce interviews to screen applicants

It is recommended that teacher training applicants must be screened thoroughly including interviewing them. This strategy can potentially ascertain the applicants' commitment and interest in training as primary school teachers. The rationale for such interviews, sometimes known as competency-based interviews (Manuti & Palmer, 2014), builds on the premise that past behaviour is the best predictor of future conduct. In addition, the study's findings indicate that interest in a teaching job influences pre-service teachers' retention. Therefore, interviewing candidates for primary teacher training through a face-to-face approach would enable training institutions to establish their interest and to determine the human capital the candidates already possess which would likely ensure their ability to complete teacher training. The interview would ascertain the past behaviour of prospective pre-service teachers, although they are not necessarily always good predictors of conduct or capacity.

6.6.2. Disburse pre-service teachers' upkeep allowances in a timely fashion

In addition to screening applicants, the findings indicate that upkeep allowances enhance retention, therefore the Ministry of Education should provide pre-service teachers' upkeep allowances in a timely fashion since that would maintain motivation during the teaching practice period. The upkeep allowances enable pre-service teachers to procure some basic learning and teaching materials such as chart paper that are usually unavailable in rural teaching practice schools. The upkeep allowance, though inadequate, also enables them to purchase items for their personal use. As argued by Becker (2008), such small-scale expenditures on pre-service teacher's education and training also account for their investment in their own human capital. Some pre-service teachers who are economically disadvantaged rely on the upkeep allowance to purchase daily necessities during the training period, hence the delays in providing the upkeep allowances discourages them. Therefore, disbursing the upkeep allowance at regular intervals would encourage and influence pre-service teachers to complete their training.

6.6.3. Harmonise recruitment in all public training institutions

While the upkeep allowances are necessary, the Ministry of Education should harmonise generic practices in the training of individuals in different professions such as education, health, state security and community development across various public institutions, especially in universities and colleges. The justification is that the findings indicate that pre-service teachers join teacher training to advance their career opportunities and, as a result, there is a possibility for an individual to apply for admission to other training colleges and then be offered a place in each of these. Hence, individuals can transfer from one training institution to another institution of their choice. This creates attrition in public institutions at different times. In this regard, according to Carniero and Heckman (2008), the role of education is to augment an individual's productivity, hence the achievement of this role may fail if individuals keep moving from one training programme to another. In this case, the public funding

of people's human capital cannot be justified (Saller, 2008). Therefore, harmonising admissions to different training institutions would prevent such transfers, thereby ensuring that an individual gets selected to one institution only to study a course, in the process enabling others to secure training places. This arrangement would eventually allow pre-service teachers to complete their teacher training.

6.6.4. Introduce a cost-sharing measure in teacher training

Besides harmonising the recruitment in training institutions, since pre-service teachers have an interest in teacher training, the Ministry of Education should introduce tuition fees in the teacher training colleges to ensure pre-service teachers' commitment to training. The payment of school fees would constitute their own investment in their human capital. On this note, Ehrenberg and Smith (2009) state that payment of tuition fees is an investment that pays off well. Additionally, an investment in human capital through the payment of school fees entails that the costs borne in the near term accrue benefits rather quickly (Ehrenberg & Smith, 2009). The implication is that the pre-service teachers who invest in their human capital through tuition fees are necessarily committed and eventually complete their teacher training.

6.6.5. Encourage monitoring of pre-service teachers' progress

In addition to introducing a cost-sharing measure, since the study's findings indicate that the School Experience Journal (SEJ) influences pre-service teachers' retention, it is recommended that their professional progress should be monitored regularly. On this note, Epp (2008) argues that journaling becomes useful in providing insights into self-awareness regarding what you do (behaviours), why you do it (values, assumptions and aspirations), how you feel (emotions) and how you think. The pre-service teachers are obliged to maintain a SEJ on a weekly basis as a requirement of their teacher training programme. It acts as a monitoring tool thereby indicating their professional progress during the teaching practice period. The head teacher and mentor's rating of the journaling work encourages the pre-service teachers to carry on with the task until

graduation. The rating includes comments that influence the pre-service teachers to complete their teacher training. More importantly, journaling helps to develop a necessary human capital as acquired during teaching practice. This human capital enables them to become productive in their post-graduation teaching context. Therefore, since some of the pre-service teachers reluctantly update their SEJ, they need more encouragement to carry on with the process in order to successfully complete their training.

6.7. Recommendations for further research

Given the recommendations which the Ministry of Education should implement following this study's findings, this section outlines some pertinent issues highlighted in this study, but which were not areas of focus. Therefore, this study recommends the following issues for further research, to generate the knowledge necessary for improving primary teacher education in Malawi.

(a) Effect of mentors' gender differences on pre-service teacher retention

The mentors in teaching practice schools are both male and female. This study concluded that more female than male pre-service teachers perceive mentoring as a useful factor for retention purposes. Therefore, there is a need to research further on the effect of mentors' gender differences in the retention of pre-service teachers. Researching this aspect would bring out valuable information as to how best to allocate mentors among pre-service teachers, thereby enhancing retention in primary teacher education in Malawi.

(b) Determining candidates' commitment to training during recruitment

The pre-service teachers' potential lack of commitment hinders retention efforts. For this reason, there is a need for further research on how best to determine candidates' engagement in primary teacher training during recruitment as an enabling factor in the retention of pre-service teachers. The research findings in this area would help to identify potential applicants in Malawi, thus facilitating their successful completion of teacher training.

(c) Impact of introducing tuition fees and non-financial incentives

Primary teacher education in Malawi is free on the premise that this encourages pre-service teachers to stay in training, although attrition is rising. Further research is needed to establish the impact of introducing tuition fees and non-financial incentives on the retention of pre-service teachers. These factors would also indicate commitment on the part of the applicants to not only enrol for training but also indicate their potential to successfully complete the same.

(d) Consequences of the readmission policy

Since one of the retention strategies involves arranging the re-admission of pre-service teachers who previously withdrew, it would be worthwhile to conduct further research on the consequences of implementing the policy given attrition and retention in primary teacher education.

(e) Timing and personal characteristics of withdrawing pre-service teachers

Whilst Kadzamira (2006) reports that 15 - 19% of pre-service teachers in Malawi leave their training before completion, it is important to determine when they abandon their training, namely whether it is either immediately after they start, midway through their training, or as they are about to complete. In addition, although pre-service teachers can withdraw from their training at any moment of their choosing, exploring the personal characteristics of those leaving would be worthwhile.

6.8. Impact on practice

Given the findings and conclusions, it is envisaged that this study portrays a great impact regarding my role in the primary teacher education practice and indeed in the entire Ministry of Education in Malawi. This study has opened many avenues in the Malawian educational arena, in a bid to transform the management and implementation of teacher education practices. Precisely, as a coordinating officer of in-service and pre-service teacher education in Malawi, the conclusions drawn out of this study will help me greatly in implementing workable

solutions for retaining pre-service teachers in Malawi. Such workable solutions emanate from the study's findings regarding attributes of recruiting pre-service teachers, teaching practice placement, assignment of mentors and the mentoring practices. Most importantly, the study has a great impact on policy formulation in the area of primary teacher education in Malawi in-order to achieve Sustainable Development Goal Number 4 which advocates for quality education.

6.9. Dissemination of findings

This study's findings will be disseminated to practitioners in the Ministry of Education through established channels such as Principals' forum, Joint Education Sector Review meeting, Management meeting, Technical Working Group meeting, Parliamentary Committee on Education and curriculum development sessions. A summarised extract of the findings and recommendations will be disseminated to the stakeholders in such gatherings. Some of these forums have Malawi's education development partners in attendance, hence, disseminating the findings and recommendations to them will help in formulating proper education intervention programmes for Malawi.

6.10. Limitations of the study

As explained in the methodology chapter, this study encountered some limitations. The first limitation relates to sample size. In this study, few pre-service teachers studying under the ODL mode were sampled because they were based in inaccessible schools. Hence, a larger proportion of the participants belonged to the Conventional group. This discrepancy resulted in findings that lacked adequate representation of opinions from the ODL group. Hence retention issues specific to ODL pre-service teachers might have been overlooked.

Secondly, this study mainly employed convenience and stratified sampling. As propounded by Landers and Behrend (2015), the convenience sampling is cost effective. Therefore, in this purely academic study, financial resources to reach out to participants based in inaccessible schools were not available, hence, convenient sampling proved to be acceptable. However, convenience

sampling creates an element of bias, hence, using random sampling of participants resolves any form of bias.

Thirdly, as a concurrent mixed method research, all the questions in the questionnaire should have been reflected in the interview guide but only few of them were tackled using both methods. Hence, few questions in the questionnaire were not fully articulated in the interview. This problem resulted in a few problems with triangulation of data, but, the impact was minimal.

In conclusion, conducting further research on the mentioned areas would undoubtedly generate useful information to complement this and other studies' findings on how best to address retention issues in primary teacher education in Malawi. Finally, Daly, Chrispeels, Dermerstioen and Moolenaar (2011) indicate that in teacher development, teachers who accumulate human capital through formal teacher preparation programmes acquire essential knowledge, skills and attitudes, tend to be more efficient and, as such, are more likely to remain in their positions. Additionally, and as some commentators have observed, "good learning comes from good teaching. More and better learning and greater achievement for everyone require the ability to find and keep more good teachers" (Hargreaves & Fullan, 2012, p.9).

7.0. References

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8.0. Appendices

Appendix 1: Questionnaire for pre-service teachers

Instruction: Please tick / shade against your most favorable response in the box provided

1. What is your gender? Male ☐ Female ☐
2. How old are you? Less than ☐ years
20 – 25 years ☐
26 – 30 years ☐
Over 30 years ☐
3. What is your marital status: ☐ Married ☐ Single
4. In which year of teacher training are you?
First year ODL ☐ Second year ODL ☐
First year Conventional ☐ Second year Conventional ☐
5. How satisfied are you with your primary teacher training experience?
Satisfied ☐ dissatisfied ☐
6. Please encircle the importance of each of these factors in your decision to become a teacher.

1 = important 2 = not important 3 = not sure

Desire to work with learners	1	2	3
Influence of one of my teachers	1	2	3
Influence of my parents	1	2	3
Love of subject matter	1	2	3
Advancement opportunities	1	2	3
Lack of other career options	1	2	3
Importance of teaching	1	2	3

Status of teachers	1	2	3
Salary	1	2	3

7. Indicate the importance of each of the following factors in your decision to remain in primary teacher training?

1 = important

2 = Not important

3 = Not sure

Availability of resources	1	2	3
Professional support from faculty	1	2	3
Support from college leadership	1	2	3
Clear future professional career	1	2	3
Pre-service teacher recruitment mechanism	1	2	3
Professional teacher organisation	1	2	3
Community support	1	2	3
Peer support	1	2	3
Parental support	1	2	3
Upkeep allowance	1	2	3
Mentoring	1	2	3

8. How would you define your teaching practice school?

hard-to-staff school	No <input type="checkbox"/>	Yes <input type="checkbox"/>	Uncertain <input type="checkbox"/>
rural school	No <input type="checkbox"/>	Yes <input type="checkbox"/>	Uncertain <input type="checkbox"/>
urban school	No <input type="checkbox"/>	Yes <input type="checkbox"/>	Uncertain <input type="checkbox"/>

9. Indicate the significance of your teacher training experience in preparing you to remain in teaching career.

1 = significant 2 = not significant 3 = not sure

(a) in a hard-to-staff school 1 2 3

(b) at a high-risk school 1 2 3

(c) in a rural school 1 2 3

10. Indicate the usefulness of each of the following mentoring services towards your decision to remain in teacher training.

1 = Useful 2 = Not useful 3 = Not sure

Mentor observing your lesson 1 2 3

Observing your mentor's lesson 1 2 3

Maintaining a School Experience Journal (SEJ) 1 2 3

Peer lesson observation 1 2 3

Professional meetings 1 2 3

Mentor rating your SEJ work 1 2 3

Head teacher rating your SEJ work 1 2 3

11. Indicate the extent of impact of pre-service teacher recruitment procedures on your continued stay in teacher training.

Impact ☐ No Impact ☐

12. Indicate your view of the extent of relationship for the following recruitment factors to your decision to remain in teacher training.

1 = related 2 = not related 3 = not sure

Age of applicant 1 2 3

Strength of certificate grades 1 2 3

Career orientation of applicant 1 2 3

Selection criteria 1 2 3

Aptitude test performance 1 2 3

Appendix 2: Interview Questions for Teacher Trainers, Mentors and Chief Teaching Practice Coordinators

1. What were your initial reasons for becoming a teacher?

.....

.....

.....

.....

2. What are the primary factors that influence you to continue teaching?

.....

.....

.....

.....

.....

3. What might be some reasons why you would leave the teaching field?

.....

.....

.....

.....

4. Based on your experience, what do you perceive as obstacles for retention of
(a) first year pre-service teachers?

.....

.....

.....

(b) second year pre-service teachers?

.....

.....

.....

5. What initiatives or actions need to occur to retain:

(a) first year pre-service primary teachers?

.....
.....
.....
.....

(b) second year pre-service primary teachers?

.....
.....
.....
.....

6. Which aspects of training program:

(a) influenced you to remain in teacher training?

.....
.....
.....
.....

(c) did not influence you to remain in teacher training?

.....
.....
.....
.....

7. Does mentoring help pre-service primary teachers to remain in teacher training? Yes ☐ No ☐

If yes,

how.....

.....
.....
.....
.....

If no,

how.....

.....
.....
.....
.....

8. What mentoring processes need to be put in place to influence pre-service primary teacher retention?

9. What recruitment factors influence pre-service teachers to remain in teacher training?

.....
.....
.....

10. What recruitment factors do not influence pre-service teachers to remain in teacher training?

.....
.....
.....

11. indicate the extent of relationship between the following factors and pre-service teacher's continued stay in teacher training?

1 = related 2 = not related 3 = not sure

Age.....1 2 3

Gender.....1 2 3

Residence.....1 2 3

Interest in teaching job..... 1 2 3

Marital status..... 1 2 3

12. What pre-service primary teacher retention strategies are used by your college?

(a)-----
(b)-----
(c)-----

Which group of pre-service teachers is likely to remain in teacher training?

younger trainees ☐ both young and old ☐
older trainees ☐ Not sure ☐

13. Which group of pre-service teachers is more likely to stay in teacher training?

male ☐ female ☐

14. Which group of pre-service teachers is more likely to stay in teacher training?

Single ☐ Married ☐ Both single and married ☐ Not sure ☐

End of interview

Appendix 3: Ethical review approval letter

Appendix 3: Ethical review approval letter

Dear Elvis

I am pleased to inform you that the EdD. Virtual Program Research Ethics Committee (VPREC) has approved your application for ethical approval for your study. Details and conditions of the approval can be found below.

Sub-Committee: EdD. Virtual Program Research Ethics Committee (VPREC)

Review type: Expedited

PI:

School: Lifelong Learning

Title:

First Reviewer: Prof. Morag A. Gray

Second Reviewer: Dr. Lucilla Crosta

Other members of
the Committee Dr. Eileen Kennedy

Date of Approval: 13th November 2014

The application was APPROVED subject to the following conditions:

Conditions

M: All serious adverse events must be reported to the
VPREC within 24 hours of their occurrence, via the EdD
1 Mandatory Thesis Primary Supervisor.

This approval applies for the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Sub-Committee should be notified. If it is proposed to make an amendment to the research, you should notify the Sub-Committee by following the Notice of Amendment procedure outlined at <http://www.liv.ac.uk/media/livacuk/researchethics/notice%20of%20amendment.doc>.

Where your research includes elements that are not conducted in the UK, approval to proceed is further conditional upon a thorough risk assessment of the site and local permission to carry out the research, including, where such a body exists, local research ethics committee approval. No documentation of local permission is required (a) if the researcher will simply be asking organisations to distribute research invitations on the researcher's behalf, or (b) if the researcher is using only public means to identify/contact participants. When medical, educational, or business records are analysed or used to identify potential research participants, the site needs to explicitly approve access to data for research purposes (even if the researcher normally has access to that data to perform his or her job).

Please note that the approval to proceed also depends on research proposal approval.

Kind regards,

Morag Gray, Chair, EdD. VPREC

UN Web Services Section, Department of Public Information, United Nations

<http://www.un.org/sustainabledevelopment/sustainabl>

Appendix 4: Participant Information Sheet



Committee on Research Ethics

Participant Information Sheet Guidelines

Title of Study

Factors Contributing to Retention in Pre-service Primary Teacher Education in Malawi

Version Number and Date

Version 1,
24/07/2014

Invitation

I would like to invite you to participate in a research study on student teacher retention. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask me if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends, relatives and work mates if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to. Thank you for reading this.

Purpose of the study

The purpose of this research study is to examine factors that cause retention of pre-service primary teachers in Malawi. This research is purposeful because the Ministry of Education, non-state actors and Universities in Malawi have previously conducted research studies focusing on determinants of attrition especially for serving teachers at all levels but there have not been any deliberate efforts to research on retention of pre-

service primary teachers who are continuously leaving teacher training in large numbers at different stages of the programme.

Therefore, as a researcher practitioner, based at teacher education headquarters, responsible for coordination of pre-service teacher education programmes in teacher training colleges, this research will improve my professional practice through inquiry and use of workable solutions for retaining primary school trainee teachers so as to improve teacher education output.

Why you have been chosen to take part

You have been chosen to take part in this research because of either: your being a pre-service primary teacher or your active involvement in the training of primary school teachers in Malawi or your being a teacher mentor for pre-service primary teachers. Over 500 others have also been chosen to take part in this research.

Do I have to take part?

You are not under any obligations whatsoever to take part in this research. Your participation is wholly voluntary and that even if you begin participation, you are free to withdraw your participation anytime without explanation or penalty. If you choose not to participate, no data related to you or your work will be used or reported in the research study.

What will happen if I take part?

If you choose to take part, some of the data you generate through participation in this research will be used to compile an anonymous report/analysis and shared with education officials, faculty and students in teacher education institutions. Your data will be collected either through questionnaires, individual interview or focus group discussion. During interviews and focus group discussions you will also be recorded.

Expenses and / or payments

You will not be provided any refreshments during individual interview and focus group discussions. Transport expenses will not be reimbursed.

Are there any risks in taking part?

It is not anticipated that you will experience any risks, harm or expenses from participation in this study. Should you experience any discomfort as a result of your participation, please inform the primary researcher immediately (contact information below).

Are there any benefits in taking part?

The main benefit of your participation in this study is that you will add a voice necessary for policy reform for retaining pre-service primary teachers. Teacher Training Colleges and the Ministry of Education in particular can look forward to enjoying an improved and more effective practice in training primary school teachers.

What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let me know by contacting Elvis Salagi (+265999343693) and I will try to help. If you remain unhappy or have a complaint which you feel you cannot come to me, then you should contact the Chair of the Research Ethics Committee via 001-612-312-1210 or liverpooletics@ohecampus.com. When contacting the chair, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

Will my participation be kept confidential?

I will not disclose to any third party that you participated in this study. Any data generated will be kept anonymous. Anonymous data generated from participants in this study will be stored for five years in a well secured password protected laptop computer and an external hard drive that will act as a backup and stored in a lockable filing cabinet whose keys will only be with me

What will happen to the results of the study?

Anonymous results will be compiled and reported within the University of Liverpool to fulfil course requirements and shared within primary teacher training colleges to improve practice. Participant data will be made unidentifiable, which means that not only are names removed, but potentially identifying characteristics and demographic information will also be stripped from any shared data.

What will happen if I want to stop taking part?

You may withdraw anytime without explanation. Results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise you may request that they are destroyed and no further use is made of them.

Who can I contact if I have further questions?

The contact details of the Principal Investigator are : Dr Lee Graham,
Doctoral Thesis Supervisor, lee.graham@my.ohecampus.com

Ethical Concerns

- **Permission**

As required by my university's research ethics committee, I will complete an ethical approval process prior to scheduling the interview and collecting organisational documents. I will have to be granted permission through an authorization letter from my organisation for all relevant data access, facility use, and use of personnel time for research purposes.

- **Potential Conflicts of Interest**

In a bid to avoid any ethical complications, I am not choosing my subordinates, their immediate supervisor, or someone who is, or might become, their student for primary data collection activities. Additionally, they are to consult their organisation's requirements for ethical approval of research.

- **Confidentiality**

Your responses to the interview questions will be securely kept by the researcher. In other words there is going to be maximum confidentiality in the custody of the research data and your privacy will be safeguarded. Mainly the data will be stored on a laptop computer with password protection. Any hard copies will also be securely filed and stored in lockable cabinets and anonymity of the respondent will be highly ensured. The data is expected to be stored for a period of 5 years with adequate provisions to maintain confidentiality. No results of the research will be made publically available without specific approval. If the research procedures might reveal criminal or unethical activity that necessitates a duty to report, then the researcher will follow appropriate ethical procedures in keeping with the organisation's regulations.

Appendix 5: Participant Consent Form



Committee on Research Ethics

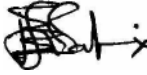
PARTICIPANT CONSENT FORM

Title of Research Project: Factors Contributing to Retention in Pre-service Primary Teacher Education in Malawi

Researcher(s): Elvis Salagi

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated 24/07/2014 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline. ☐
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish. ☐
4. I agree to take part in the above study. ☐

_____ Participant Name	_____ Date	_____ Signature
_____ Name of Person taking consent	_____ Date	_____ Signature
_____ Elvis Salagi	_____ 24/07/14	_____ 
_____ Researcher	_____ Date	_____ Signature

Principal Investigator:Name: **D Lee Graham**

Work Address:

Work Telephone

Work Email: lee.graham@my.ohcampus.

elvis.salagi@my.ohcampus.com

Student Researcher:

Name: Elvis Salagi

Work Address: Ministry of Education

Work Telephone: +265 1 755504

Work Email:

[Version 2.1 July 2015]**Optional Statements**

- The information you have submitted will be published as a report; please indicate whether you would like to receive a copy.

☐

- I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications **[or explain the possible anonymity options that you are offering participants and provide appropriate tick box options accordingly]**.

☐

- I agree for the data collected from me to be used in future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee.

☐

- I understand and agree that my participation will be audio recorded /video recorded **(please delete as appropriate)** and I am aware of and consent to your use of these recordings for the following purposes **(which must be specified)**

☐

- I understand that I must not take part if... **[list exclusion criteria, for example pregnancy]**

☐

- I agree for the data collected from me to be used in relevant future research.

☐

- I would like my name used and I understand and agree that what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognised.

☐

- I understand that my responses will be kept strictly confidential **[only if true]**. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.

☐

- I understand and agree that once I submit my data it will become anonymised and I will therefore no longer be able to withdraw my data.

☐

FOR MARIARC PROJECTS ONLY:

- I agree that my GP may be contacted if any unexpected results are found in relation to my health.

☐